The
NATION'S SCHOOLS
DEVOTED TO THE APPLICATION OF RESEARCH TO
THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME IX MAY, 1932 NUMBER 5

# How Shall School Officials Meet the Economic Crisis?

*They should reduce the budget only after careful thought, cooperate in bringing about an equitable adjustment of the financial burden and, in all cases, require a high standard of teaching*

By DAVID E. WEGLEIN, Superintendent of Schools, Baltimore

AT THE meeting of the Department of Superintendence held in Detroit in February, 1931, the department, by resolution, authorized the president to appoint a committee on school costs, the committee to be composed of superintendents and laymen. At that time the situation confronting the schools of the United States seemed to be serious, but no one at the Detroit meeting could possibly have foreseen how critical the situation would become in the year that has elapsed. The emergency that has arisen calls for the united efforts of school administrators and everyone else interested in schools throughout the country. We are already familiar with what has happened in this respect in various sections of the United States.

### *School Needs Must Be Emphasized*

Part I of the committee report indicates what the general situation is at the present time. Indeed no report, no matter how well prepared, can give an exact statement of what is being done because conditions are changing daily, and the information compiled by the division of research, National Education Association, can be considered accurate only up to the moment at which it is compiled. Additional information depicts changes that are constantly being made. Some of the curtailments may be indicated by the following economic measures:

Complete closing of all schools in some localities.
Serious reductions in the length of school terms.
Closing of night schools.
Reduction or closing of kindergartens.
Larger classes.
Curtailment of phases of school health work.

The committee on school costs has held several meetings, and it has given serious and earnest consideration to the problems that are confronting the schools of this country.

What should school administrators do in the present crisis? The establishment and operation of school systems are functions of general government. Whether a department of public schools is supported by funds forming a part of general expenditures for governmental purposes or is maintained by taxes separately levied, the amount expended for schools must be included in any general consideration of public expenditures. The economic situation that has developed has necessarily brought forward for consideration and action the question of reduction in governmental expenses. Those who are connected with school systems must recognize clearly that the question

of the amount to be expended for school purposes cannot be and should not be omitted when consideration is given to the problem of general governmental expenditures. School people generally do recognize that obligation to help meet the emergency. There are several facts, however, that should be kept steadily in view in the discussion of such questions.

*Retrenchments "Creative" and "Destructive"*

First, school expenditures constitute one of the largest and in some localities the greatest single division of governmental expenses. Because of the large amount of money involved in the cost of school systems, there develops a tendency to use the school system as the place for greatest retrenchment because of the possibility of reducing school budgets by large amounts. Here lies a source of danger to educational opportunity and educational efficiency. Curtailment in the amounts to be expended for school purposes is an action to be taken only after the most careful study by those who are professionally qualified to pass judgment upon matters of such vital importance to the community. Hasty and ill-considered reductions in school budgets may do harm to the education of children which can never be overcome. It should be remembered that the boys and girls who are now in school have only this opportunity to obtain their education. Whatever is eliminated for them at this time cannot be replaced later on.

Second, the responsibility for determining what total amount of money or what relative expenditure shall be made for school purposes rests not upon the school authorities alone but must be borne by the entire community. Society has established these public school systems for definite purposes and to meet certain clearly defined aims. The public must therefore bear the burden of determining what is to be done in this time of emergency for expenditures for schools. Those directly concerned with the administration of school systems are not only willing but eager to participate in these matters of tremendous importance to every locality. There are two decisions to be made. First, what total sum should be spent for schools? The final responsibility for this decision is one that the entire community must assume. Second, the administration of the amount thus provided should be vested in the professional staff reporting to the board of education.

Third, school systems while being confronted with reduced budgets must at the same time meet the problem of abnormal increases in enrollment. Not only has the usual normal increase in school population to be provided for, but the present economic situation itself has caused more than the ordinary number of pupils to remain in school beyond the time at which they would in the usual course of events withdraw.

Since school budgets are being reduced in many localities, the question of possible economies must be faced. It is at once apparent that no one answer can be given that may be applied satisfactorily to all school systems. Each of such systems should be a subject of study in itself in order to determine what procedure is best. In the process of reducing expenditures, it will be necessary to consider carefully not only the absolute value of items included in school work, but also the relative value of the several activities included in the system. A branch of work may be rated high in relative value in one locality, while in another school system, for equally weighty reasons, the same department may be placed much lower in rank.

In a time of enforced economy, such as exists at present, the opportunity may present itself to derive even some benefit from the situation, serious as it is.

Educational administrators and other members of school systems are compelled to study more closely than ever the validity of certain assumptions that have been taken for granted, the value of certain types of school organization, the results of educational procedures and many other items that are included in the complex educational system. As has been said, what we need at this time is "creative retrenchment" rather than "destructive retrenchment." Care should be taken that there should be the least possible curtailment of educational advantages.

*The Dangers of Too Hasty Action*

One cannot emphasize too strongly the necessity for adopting sound budgetary procedure. A school budget expresses financially what the main educational policies of the school system are. It should be based not only upon what the expected needs of the schools may be, but also upon a careful analysis of what the expenditures have been in preceding years. Budgets should be prepared in considerable detail, and no departure from a given item should be made without due consideration and approval by the board of education.

In suggesting possible economies that may be made in school systems in order to meet the present emergency, it should be borne clearly in mind that what may be advisable and desirable in one system may be of totally different value in another school system. Here lies a serious danger. Hasty action may be taken which may do great harm unless retrenchment is conducted under careful auspices by persons who are thoroughly trained and experienced.

The committee has considered four general items which are outlined in the following paragraphs.

1. Capital Investment:

A close study should be made of the greatest possible utilization of the present school plant. In providing for its maximum use, the necessity of additional expenditures may be reduced to a minimum.

The postponement or curtailment of building programs presents a difficult situation. On the one hand, school systems are faced with a steadily increasing enrollment calling for the extension of the school plant. There is, moreover, the opportunity to obtain new buildings at this time with less expenditure because of the reduction in the cost of building construction. On the other hand, there is the present difficulty of meeting capital expenditures either through bond issues (when interest rates are extraordinarily high) or through the tax levy which is already bearing a great burden. Local conditions must necessarily determine the solution of this problem.

*Reducing the Costs of New Buildings*

A careful study of plans of new buildings should be made so as to reduce the cost. There is no doubt that considerable saving may be effected by the size and arrangement of corridors, the size of rooms, the height of ceilings and the exterior decorations. Consideration should be given to the cost of maintenance and operation as well as to the expense of initial construction.

New construction should be planned in large enough units to make efficient administration possible. The erection of several small buildings in place of one large one should be discouraged if a careful study of local conditions should indicate that greater educational efficiency and economy may be obtained by the construction of a large school plant. Especially is this the case in areas where the population is rather congested.

The purchase of new school sites should be postponed when the local situation makes such procedure advisable. Because of the fact that new construction is being curtailed, there is not the pressing necessity for the acquisition of new school sites to take care of future development.

Thoughtful consideration should be given to the possibility of refunding obligations which mature at the present time or in the near future. In this way the burden placed upon the current tax may be postponed until economic conditions improve.

2. Improved Business Administration:

The business departments of school systems may be studied with a view not only to obtaining a reduction in costs but also to promoting efficiency in conducting the various operations included. Some possible fields of investigation and improvement are (a) a more careful preparation of specifications for the purchase of equipment and supplies; (b) a more rigorous inspection of deliveries in regard to both quantity and quality; (c) a close study of purchases of equipment and supplies as to their necessity; (d) a thorough study of the efficiency of office and business personnel; (e) a scientific study of the insurance on school property, as to amount carried, rate; (f) ample protection for school funds, in the bank or elsewhere, by proper safeguards.

3. School Service Rendered:

The present situation affords an opportunity to make a close study of educational organization, administration and curriculum offerings for the purpose of attaining the maximum possible in compactness and efficiency. It should be borne in mind that the concept of economy cannot be separated from the concept of efficiency. Many services, moreover, have been included at the urgent request of community organizations and groups of interested citizens. It is impossible to state details that will be equally applicable to every school system. Local situations, which vary so widely among different school systems, will necessarily determine the advisability and the necessity of changes to be made. Great danger arises when a plan of procedure which is well adapted to one school system is arbitrarily applied to another system in which the conditions are quite different.

*Better Salaries Purchase Better Service*

Here is a field for thoroughly trained and experienced school people, and they should not only take the initiative in securing adjustments looking to economy but should also inform the public of the damage that may result from any ill-considered proposal. The decisions that must be made as to desirable and undesirable forms of economy should be based upon expert professional knowledge. An extensive professional literature on economical school administration exists.

4. Teachers' Salaries:

There is one irreducible minimum for effective education. This one basic requirement is good teaching. Such service can be expected only from men and women of broad training and high personal qualities. Such persons are everywhere and always in demand. If the schools cannot compete with other agencies in obtaining this type of teacher, the most important single element of educational efficiency is lost. Retrenchment in teachers' salaries tends ultimately to retain the poorest teachers and to drive the best teachers into other careers. At the same time, desirable candidates for teacher training institutions are discouraged

by the economic unattractiveness of this field.

Teaching has not yet attained a satisfactory position when the importance of the service and the comparative earnings of other occupational groups are considered. The average salary of teachers is still less than three-fourths as much as the average salary of other gainfully employed persons. Meanwhile, requirements for certification and appointment to the teaching service are steadily increasing. If the nation expects to obtain progressively better equipped teachers for its children it must not consent to a reduction of teachers' salaries.

At the same time the educational profession must demonstrate that the maintenance of advancement of salaries means finer educational opportunities. Standards for certification must be kept high, and in many states must be lifted higher than at present. Processes of rigid selection must exclude the incompetent from the ranks. Increases in salaries must be accompanied by earnest efforts on the part of the entire teaching staff to improve in professional skill and academic background. Efficiency must be the prerequisite for continued employment and for advancement. More attention must be given to the scientific study of the problems basic to salary scheduling.

In the last analysis the people will have as good schools as they are willing to pay for. The teaching profession, on its part, must show the public that better salaries actually do purchase better teaching service.

### *The Folly of Inequitable Reductions*

The view of the committee, then, may be summarized as follows:

The determination of how much shall be spent for the support of the public schools is a responsibility that rests upon the entire community and not upon school authorities alone. After the total amount that may be expended has been determined, it is the duty and the obligation of the school administrator to study carefully every item of school procedure so that no retrenchment in any item will be made without careful consideration and study.

Educators recognize that the establishment and operation of school systems constitute only one function of government. In this period of retrenchment, school systems will cooperate in meeting the emergency that has arisen. In no case, however, should the schools be expected to stand more than their share of the necessity for retrenchment. School administrators on the one hand should cooperate in bringing about an equitable adjustment of the financial burden, and on the other hand they should not hesitate to call the attention of the community to the possible harm that may be inflicted upon the children as a result of inequitable reductions.

No matter what adjustment may be made in the present emergency, it is clearly evident that the present systems of taxation in most places are not adequate, either for the support of the public schools or for the carrying on of governmental functions in general.[1]

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## How a State Superintendent Would Effect School Economies

Declaring that "hasty and ill-considered reductions in school budgets may do harm to the education of children which never can be overcome," Dr. James N. Rule, state superintendent of public instruction for Pennsylvania suggests a program of economies in school administration to meet the present financial emergency.

Superintendent Rule lists seven suggestions for guidance in the need for balancing school budgets. He says that no list of possible economies can be suggested which may be applied satisfactorily to all school systems, but says that "the making of the school budget is a matter calling for good judgment and technical skill, and the inauguration of possible economies requires both expert professional knowledge and common sense."

Economical collection of school taxes is the first of Doctor Rule's seven suggestions for savings. He ventures the opinion that the expenses of general control may be reduced by cutting down excessive fees paid to collectors of school taxes, and by eliminating fees of school board treasurers.

On debt service Doctor Rule says that a report from the state's department of internal affairs points out that in a school district floating a $75,000 bond issue by issuing a serial type of bond rather than the sinking fund type, there was a net saving of $24,000 to the district. In another instance of the same type there was a saving of $79,000 on a quarter million loan by using the serial type in preference to the sinking fund type of bond.

Other recommendations cover reductions in operating costs; cooperation with the school buildings division of the state department of public instruction in provision of sane building programs; internal instructional adjustments to improve the teacher-pupil ratio; lower transportation cost contracts that are now available and the maintenance of teachers' salaries to keep up with present educational standards.

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[1]Read at the meeting of the Department of Superintendence, Washington, D. C., February 20 to 25.

# Providing Periods of Quiet for Study in High Schools

*Pupils need a refuge into which they may withdraw to think their problems through; this article on the study room suggests how this may be provided*

By MARY E. JOHNSON, Pasadena, Calif.

ALTHOUGH little has been written about the high school study room, it is a subject that deserves careful consideration.

Wise principals are insisting that high school pupils have a place and a time in which to do their independent thinking and their creative writing. In the recitation room, during a laboratory period, during supervised study, the pupils are working more or less with others, and the teacher is there to help in time of need. The teacher is showing them how to work, and they are practicing under supervision. All this, of course, is necessary and important. On the other hand, the pupils also have assignments that they must work out by independent, individual effort. They must have a place and a time for this.

The ideal place, the place where the pupil could do his best work, would be his own well lighted, well heated, comfortable, quiet room at home, to which, at certain sacred hours, he could retire from the world and its distractions. But, few pupils can boast of such a retreat. Instead, many make only feeble efforts to study in the confusion of the family living room or kitchen or in their own rooms, which are cold or poorly lighted. Many a pupil has no room of his own, no privacy whatever. It seems to be the style even among the upper middle class to build as small a house as possible, but to be sure to have a double garage.

Even if a retreat at home is available, time is generally lacking. Work other than school work or recreation claims most of the time outside of the six or seven hours that are given to school. These pupils are young men and women of affairs. The success of this or that enterprise rests upon their shoulders.

So it is that the study periods at school afford the only time and place that many of them have for individual study. Certainly these hours should never be infringed upon. No pupil's program

*At the new Charles W. Eliot Junior High School, Pasadena, Calif., the library is used as a study room.*

should be approved which does not show at least one study period. An activities' period should take care of conferences, visits to the office, committee meetings, the moving of chairs and the decorating for parties. A pupil should not say, "Oh yes, I can do that in my study period. I have a free period." It is not a free period. It is the time for him to stop and think.

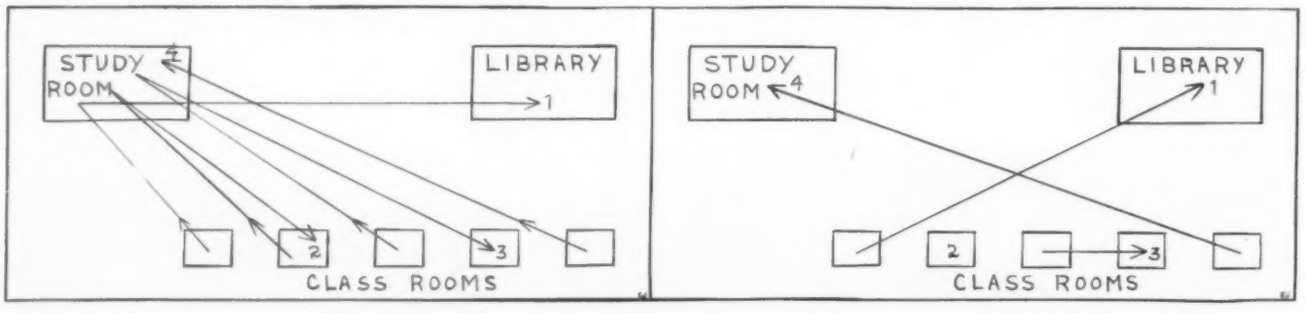
Some schools use the library as a study room. I know of several junior high schools and comparatively small senior high schools which do so. When this arrangement is possible, the accessibility of the reference books and the usually pleasant appearance of the room are distinct advantages, if these are joined with a management that assures absolute quiet. If large numbers of pupils must be accommodated during each period of the day, however, this plan is not so often used. The library would have to be a large room to accommodate all study room pupils, and there would be even more confusion than there generally is in the general reading rooms of university libraries. The newer buildings for large schools have more than one study room, each seating a comparatively small number of pupils. To divide the books of the library among several study rooms or to have duplicate sets would cause confusion or expense, so many schools have both study rooms and libraries.

I have seen a study room where everything was arranged to help the pupil make the best use of his time. There was nothing to irritate him or to distract his attention. The light from outside was good, and the teacher kept careful watch and, when it was necessary, adjusted the shades or turned on the electric lights. The heat was correctly regulated and there was a satisfactory ventilation system. The seats were of different heights, so that pupils could find those that fitted them. Above all, there was absolute quiet.

Many study rooms, however, are different from this. School authorities do not provide adequate equipment. Forgetful of the real purpose of the period, many teachers consider it necessary that the first part of the period be a season of noisy arrivals and of disorder incident to taking the roll, giving various permissions and dismissing some to go to the library. Recently I visited a school where at least twenty minutes of the fifty-minute study period were spent in such ways, and few of the pupils studied for more than half the period. It is true that the pupil who can concentrate can study in the midst of noise, but his nerves will suffer and he will not do as good work as he would under more favorable conditions. Most pupils cannot concentrate under such circumstances.

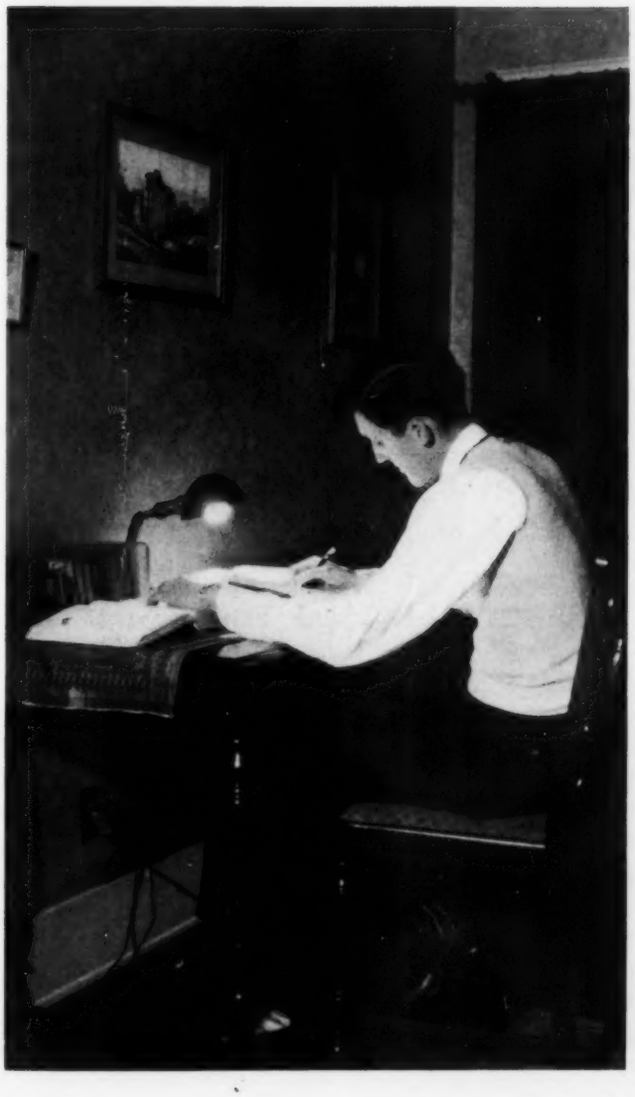
There is no doubt that a careful account must be kept of attendance and of the whereabouts of the pupils at all times, for, in schools where the pupils are allowed to wander about at will, the results are disastrous. Some system is often worked out, however, which does the work of keeping track of the pupils without any confusion.

Uniformity of rules seems to be important. When the system is the same for the whole school and if it has been in effect for several years the matter of habit enters in, and waste in adjustments is saved. In some schools, for the sake of uniformity, the same teacher has charge of the study room all day, but this may not be practicable or the teacher may not enjoy the monotony. If there is a large turnover of teachers and if each teacher is allowed to make new rules, the pupil barely has time to adjust himself to the rules of the study room before he has to learn different ones. The new rules may be excellent, but confusion and disorder result while they are being learned. Those who have given thought to the matter and have worked out a practical study system have found that it is best to have uniform rules and retain them.




*These diagrams show four possible destinations of pupils: 1, the library; 2, the classroom where they are; 3, another classroom, and 4, the study room. The diagram on the left shows that after leaving their classrooms pupils report to the study room before going on to their destinations for the period; the diagram on the right shows the pupils' route leading from their classrooms directly to their destinations for the period.*

Certain devices have been found to be helpful in doing away with common difficulties. The plan of having a pupil report to the study room and of then excusing him to go to the library is one of the chief causes of confusion at the beginning of



*The study room in the high school at Beaver Dam, Wis., pictured above, is well lighted, quiet and orderly and provides an environment conducive to study. The pupil in the lower picture has the ideal study room, his own well lighted, well heated, comfortable, quiet room at home.*

the hour. It also wastes the time of the one who wants to go to the library, especially if the school is large and the distances are great. The better plan is this: If John Jones of Study Room B wishes to go to the library and if he has permission to do so, he goes directly there from his class. As he enters the library, he signs his name on a sheet headed, "Pupils in the library from Study Room B." John stays in the library for the rest of the period.

John does not have permission to go to the library every day. In most schools the library will not accommodate all those who might wish to visit it at a certain period. Moreover, it would not be best for the boy. One of his teachers has had the reference books for her class taken to the recitation room, and John does his reference work there during the supervised study period. Another teacher allows several days after giving an assignment before asking for reports on library work. The time the pupil spends in browsing in the library needs to be limited. There is much moving about in the library and low talking as the librarian helps pupils to find material. On all accounts, John is much better off most of the time in the quiet of the study room working alone with his own personal equipment of notebooks and texts. Therefore, he is told that he may go to the library only

on certain days, and he decides for himself whether and when he shall take advantage of this permission.

In much the same way, other absences from the study room can be limited in number or can be accounted for without causing disturbance at the beginning of the hour. Perhaps Evan Smith has been absent for some days and cannot go to the study room and do his algebra problems by himself until he has had the method explained to him. His algebra teacher tells him to report to her recitation room, No. 36, instead of going to the study room. As he enters the room, he signs his name on a sheet headed, "Pupils in Room No. 36 from Study Room B." A clerk collects this list with others and takes them down to Study Room B, and Evan is of course counted present. No pupil will have a right to be absent from the study room unless the librarian or some teacher accounts for his absence on a sheet which is sent to the study room. In other words, it is economy for the clerk to do the running around to the library and the classrooms collecting the data for the attendance record rather than for each individual pupil to report first to the study room and then somewhere else. And, by the way, a clerk collects the lists, not a monitor. The boy who might serve as monitor is not robbed of his study period.

Taking the attendance need not cause commotion. If the number enrolled is less than a hundred, the teacher can take the roll from a chart. If there is a larger number in the room, a monitor in each row can take the roll quickly and with little disturbance. He records the absentees according to his list as he goes down the aisle and checks his record as he comes back to his seat. A little later, the teacher can use these records of the monitors and the lists from the library and classrooms and make out an accurate list of those enrolled who are not accounted for.

### *Devices That Assure Quiet*

With the usual disturbances at the beginning of the period done away with, half the battle for a quiet room is won. Other devices, however, help to attain that perfect atmosphere that prevails in some study rooms. It is best to have the rule of absolute silence even before the bell rings. The pupils come in and get right to work. A swinging door, kept closed even between classes, shuts out the noises of the hall. No outsider comes in for any purpose. There is a narrow opening in the door through which written notices may be slipped to fall into a box inside. If the notice is for some individual pupil, the teacher delivers it at once. If it is a notice for the whole group, she waits until the end of the hour before reading it aloud.

The teacher does not help the pupils with their work but she is busy nevertheless. The room may be too peaceful for some, who will need to be awakened. The teacher watches to see that all are working and leaves a note on the desk of one who is evidently wasting time. She is careful, however, lest she misjudge one who is composing a poem or thinking out some problem. Often a pupil will say that he has his work all done, and his case will need outside investigation.

All this seems like an apparent contradiction, like trying to force pupils to think independently. Of course, thinking is something that cannot be forced, but time and time again pupils indicate that they heartily appreciate having every possible safeguard afforded them that they may have the time and a quiet place in which to stop to think.

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## System of Textbook Ownership in Use in Oregon Schools

The year 1931 saw the inauguration of a plan for district owned textbooks in the elementary schools of Oregon under a law enacted by the legislature and regulations worked out by the state department of education, according to C. A. Howard, superintendent of public instruction. The new system has gone into operation with a minimum of confusion.

"The department has promoted the organization of book exchanges in high schools through which pupils may buy and sell used textbooks and has proposed the adoption of a rental system for high school books used in required courses," Mr. Howard points out. "Expenditures for new textbooks vary from year to year, but the average over a period of years is approximately $300,000 per year.

"Conservative estimates indicate that through district purchase for the elementary grades and through general adoption of book exchange and rental plans in high schools, from $75,000 to $100,000 per year can be saved in the outlay for textbooks.

"Hereafter, the adoption of textbooks for use in Oregon schools and the preparation of courses of study will be centralized under the direction of a single commission. This has been brought about by the appointment of textbook commissioners who will serve in an advisory capacity with the state school superintendent as a commission on curriculum construction. Plans have been worked out by this commission that will assure a closer relationship between textbook selections and curricular requirements than was possible under plans formerly in use. Comparative costs can also be given more thorough study."

# Choosing an Organization Plan

*A highly condensed statement of the advantages and disadvantages of three plans of organizing a school system*

By ALONZO G. GRACE, Department of Education, University of Rochester, Rochester, N. Y.

A SUPERINTENDENT of schools is the president of a corporation in which the taxpayers are the stockholders. The larger the city and the school system, the larger will be the functions and the responsibilities of the executive officer in charge. Whether the school system is large or small, the contention at this point is that a superintendent of schools or the directing head of any other educational enterprise must be a business man as well as an educator. One wonders at times whether or not a year of business administration and some form of service in a large business organization should not be a part of the training of the school administrator. Spending the taxpayers' money is easy. The most difficult task of any executive is to save money, effectively and efficiently.

Are the public schools spending too much money? Whether or not this question may be answered satisfactorily, the fact remains that for the first time education is on the defensive. An indictment on two counts has been returned. First, the critic proclaims that too much is being spent on education, and second, that an inferior product is the result. The charges indicate the need for a complete self-survey by every board of education and every educational administrator in the country. If the public is receiving an adequate return on the investment, there need be no fear of the outcome. If, on the other hand, there are questionable expenditures or doubtful educational ventures, then it behooves the public educationist to whittle his budget to the point of bare necessity during these strenuous times. Educational luxuries must either pay for themselves or be paid for by the consumer. If there ever was a time when boards of education and educators should be willing to adjust their program to suit the emergency, it is now. What steps should be taken to reduce taxes and still have an effective school organization? Certainly one avenue to consider is school organization.

It is evident from this presentation that boards of education or school administrators should use great care before plunging a whole system into chaos by unwarranted enthusiasm for one great system or the other. It is evident that the 8-4-4 plan is practically impossible to use. Yet it would be folly to say that, of the others, any one is the logical basis for the organization within a school system. Local conditions will determine to a great extent which system will serve the community most effectively.

The purpose of this discussion is to assemble the arguments for and against certain types of school organization. What are the advantages and disadvantages of the school plans and school organizations as revealed by the literature on this subject?

Several types of school organization now are functioning successfully in the United States. In this article an effort has been made to set forth the arguments for and against each of the systems as revealed by the literature on the subject.

### *The 6-6 Plan*

Following are the advantages of the junior-senior high school of the 6-6 plan:

1. It eliminates the gap in secondary education. When there is a break in the separate junior and senior high schools between the ninth and tenth grades as great or greater than the previous gap between the eighth and ninth grades, the junior-senior high school makes of secondary education a continuous process.

2. It provides continuity of administration of both curricular and extracurricular programs in realizing the cardinal principles. It promotes continuity of courses and curricula and provides a school of sufficient size and equipment for experimentation in carrying on several types of curricula side by side and under one roof.

3. It tends to hold the pupils longer in school because old stoppng places are done away with and pupils look upon the courses of Grades 7 to 12 as a continuous process of education.

4. It affords real guidance a chance by keeping the pupils under one environment long enough to discover aptitudes and to direct tendencies.

5. It provides more varied equipment and permits greater utilization of the school plant.

6. It keeps junior high school grades and senior high school grades in closer touch.

7. It is more economical in administration and supervision.

8. It does away with disagreements as to the type of work done and whether the senior high school shall accept and give credit for work done in the junior high school.

9. It affords a better chance at transitional and vocational courses.

10. It provides more adequately for individual differences by making possible the election of senior high school subjects by overage pupils and pupils who leave school early.

11. It provides a more effective coordination of courses.

12. It promotes socialization, particularly in small communities.

13. It provides an atmosphere that promotes growth, fostering group consciousness, affording inspiration and instilling in the pupils pride in the school.

14. It provides greater opportunity for pupil leadership and facilitates development of higher examples of leadership, scholarship and character.

15. It offers better training in consideration for others, providing opportunities for "big brother" and "big sister" activities and offering the example and presence of older pupils, which may be of great value to the younger group, inciting them to wholesome emulation.

16. It facilitates grouping by age interests for some purposes and allows overage pupils in a low grade to find an opportunity to associate with those of their own age and size.

17. It gives the teachers more and longer contact with the pupils, broadens their minds and sympathies and helps them to see secondary education as a continuous process.

18. It is the only institution adapted to the needs of those pupils who now leave school at the end of the tenth year.

19. It permits the bright pupil to gain time or more completely to round out his course.

20. It permits the use of the full-time teacher of special subjects such as art and music.

21. The experiences of schools in England, France and Germany and of many private secondary schools in this country lend color to the belief that we cannot afford to break up all secondary education into small three-year units.

22. In the small town and the rural community the 6-6 plan makes the school large enough for social activities that would otherwise be impossible. The participation of the seventh and eighth grades in extracurricular activities makes these activities more worth while.

23. In the small community it allows departmentalizing of the work of the seventh and eighth grades and results in a better distribution of teachers: (a) The lines of the teachers' work being limited, specialization would be more in evidence and a teacher of a given subject could span six years instead of three. (b) It permits segregation of sexes for hygiene and health instruction. (c) The recitation periods may be lengthened. (d) Promotion by subject would save the slow pupil from failure by the year or half year and would assist the bright pupil in getting ahead. (e) A limited amount of election would be possible without increasing the teaching force (f) Greater freedom would be given the pupils and more responsibility placed upon the individual. (g) Common use of equipment is an economical measure, thus making it possible to maintain the 6-6 plan without materially increasing the cost.

Following are the disadvantages of the 6-6 plan:

1. It means loss of individual contact and fails to make the younger pupils feel at home.

2. It is likely to develop an unwieldy student body with friction between the older and younger groups because of lack of common interests.

3. It enhances the danger of overorganization and excessive attention to machinery, complicates library and reading room problems, adds to the difficulty of administering school projects, offers unusual difficulties in schedule making and multiplies the details to be handled by teachers.

4. It denies the younger pupils the chance of leadership, tends to suppress them and give them an inferiority complex, promotes domination by the older pupils and imitation of their faults rather than their virtues, leads to the premature development of the younger pupils and gives them a wrong perspective.

5. It increases the problem of moral guidance.

6. It promotes jealousy among the teachers operating under different salary schedules and under two standards according to the size of the classes.

7. It develops neither the special atmosphere of the specialized high school nor a special junior high school atmosphere.

8. An undue amount of attention and teaching time is given to Grades 7 to 9.

### *The 6-3-3 Plan*

Following are the advantages of the 6-3-3 plan:

1. The interests, attitudes and activities of children from eleven to fourteen years differ from those of pupils whose age range is below and above this limit. The 6-3-3 system accomplishes a group-

ing of this age under a separate educational and administrative unit.

2. The association of the pupils of the junior high school with those of the senior high school discourages standards for the younger pupils being set by the older pupils, whose standards are of a type unsuited to the need of the younger pupils at this stage of development. The same comparison may be made between the elementary and the junior high school.

3. It provides six years for the acquisition of tool subjects, three years for exploration courses and three years for specialization of major interests.

4. There is provision for more men teachers when the secondary school is six years in length.

5. This system provides special types of work for pupils who have short school careers before them.

6. It provides for the humanization of the education of adolescents through excursions into new fields of human interests (opportunities for becoming acquainted with special fields of knowledge, trades and skills and establishing of interests); through explanatory courses; through a system of guidance; through improved methods of teaching (departmentalization, higher standards for teachers and better selection); through an enriched program of studies, and through student participation in extracurricular activities.

7. It makes possible a more democratic education for adolescents by adaption of work to the needs of individual pupils; by a closer correlation of school work with out of school interests and experiences; by providing adequate opportunities for social development among pupils; by bridging the gap between the elementary school and the higher school; by preventing unnecessary withdrawals; by economy of time through the enrichment of the program of studies.

8. The administrative advantages of the 6-3-3 plan are: (a) centralization and grouping of grades, which secures an enrollment large enough for the adoption of a humanizing and democratizing program for adolescents; (b) full-time teachers of special subjects; (c) common shops, laboratories, gymnasiums and other departments for both junior and senior high schools; (d) relief from overcrowding.

Following are the disadvantages of the 6-3-3 plan:

1. Three years is not a sufficient time for the completion of acceptable units in foreign languages, social science and mathematics.

2. Three years is not a sufficient time for the orientation, exploration, broadening and finding of the pupils.

3. The plan results in increased articulation problems.

4. The foundation subjects of the senior high school are taken from the senior high school.

5. The foundation years of the high school subjects are taken from the senior high school.

6. The break at the end of the sixth and the ninth year in passing from one school to another and from one organization to another "tends to produce nervous instability and mental scattering."

7. The excess number of subjects together with liberal election during the last six years puts the pupil ahead of his real ability.

8. In making building adjustments for this system often an antiquated senior high school building is given to the junior high school organization and a new building for the senior high school is erected.

9. The excessive number of subjects, together with liberal election privileges, puts the pupil ahead of his real ability.

10. The much needed "discipline" for the adolescent is not obtained in the junior high school.

11. Specialization is encouraged too early.

12. Drill is underestimated.

### *The 8-4-4 Plan*

Following is the one advantage of the 8-4-4 plan:

For pupils of the upper middle classes, destined because of their intelligence and social background to go to high school and college, guidance is by way of choice of subjects and vocations are of small consequence. These children need the influence of a definite path of present achievement to a definite future.

Following are the disadvantages of the 8-4-4 plan:

1. Few of the teachers of the seventh and eighth grades in the old elementary school were college graduates or students of the newer methods in education.

2. Futile reviews of the materials of the middle grades of the old elementary school dominated the curriculum of Grades 7 and 8.

3. With this plan little opportunity is provided for differentiation of courses to accommodate differences in aptitudes, abilities, sex and probable future.

4. Little opportunity is provided for the pupil to become acquainted gradually with high school studies and methods.

5. No provision is made for vocational, educational, or social guidance.

6. The gap between Grades 8 and 9 is so wide that few pupils could cross it successfully.

7. The growing child is usually faced squarely

toward adolescent and even adult activities by the time he is twelve. To keep him bound down by the relatively narrow routine of the elementary school until fourteen is so oppressive as to be a form of slavery.

8. The seventh and eighth grades of the old elementary school provided few opportunities for intellectual or moral choice.

9. The four-year period of the old high school was not long enough to provide the child with the general information and its application to life's problems needed by the citizen of a social order that is becoming increasingly complex.

10. The attempt to provide in the upper grades of the old elementary school the facilities needed for the proper education of the child in early adolescence proved impossible in small schools and too expensive in large ones.

11. The old elementary school was so set in its ways that substantial reforms within the organization were almost impossible.

12. Both the old elementary and the old secondary schools were so standardized around procedures adapted to an earlier period of society that both needed to be forced to meet new problems in social adjustment.

### *The Junior College Plan*

The junior college plan may result in a 6-3-3-2, a 6-4-4, or a 6-6-2 grouping. Perhaps it would not be unwise to hope for a day when the training of teachers will be delegated to the schools of education or the departments of education of our universities. The normal schools would then develop the junior college curriculum. This may be the ultimate solution of the problem of the oversupply of teachers which has resulted from the application of mass production ideals to this phase of educational effort.

Following are the advantages of the junior college plan:

1. It is less expensive to parents since their children do not live away from home during the first two years of college.

2. It overcomes the handicap of the students' geographic remoteness from a standard college.

3. It provides an increased opportunity for young people of the community to secure higher education.

4. It enables parents to keep their children at home for two more years while they are still young and immature.

5. It permits students to live at home while meeting entrance requirements to professional schools.

6. It permits closer supervision and guidance of students.

7. It serves as a completion school for competent young people who cannot finish college.

8. The junior college term would be years for testing the ability of college students.

9. It would reveal the ability of the individual to himself and would discover types of ability no less real and of no less social utility.

10. It would be a solution of how to obtain the preprofessional work now being required by professional schools.

Following are the disadvantages of the junior college plan:

1. It gives instruction adapted to the high school age and therefore stimulates little rational self-control, which college life teaches and demands.

2. It is usually too near its public, and this public exercises an interfering and sometimes demoralizing control.

3. It permits the student to live at home under close parental surveillance and thus he misses the mental loosening up that comes from transplantation into new surroundings and the maturing experience of doing for himself.

4. It provides close supervision of extracurricular affairs and deprives the individual of their development value.

These several plans suggest the need for careful consideration on the part of any board of education before it commits itself to a particular system. Each community should adopt that system of organization which is most effective and most efficient for its particular needs. Administrators are too often guilty of accepting systems of education without visualizing the ultimate result either with respect to the product or to the budget.

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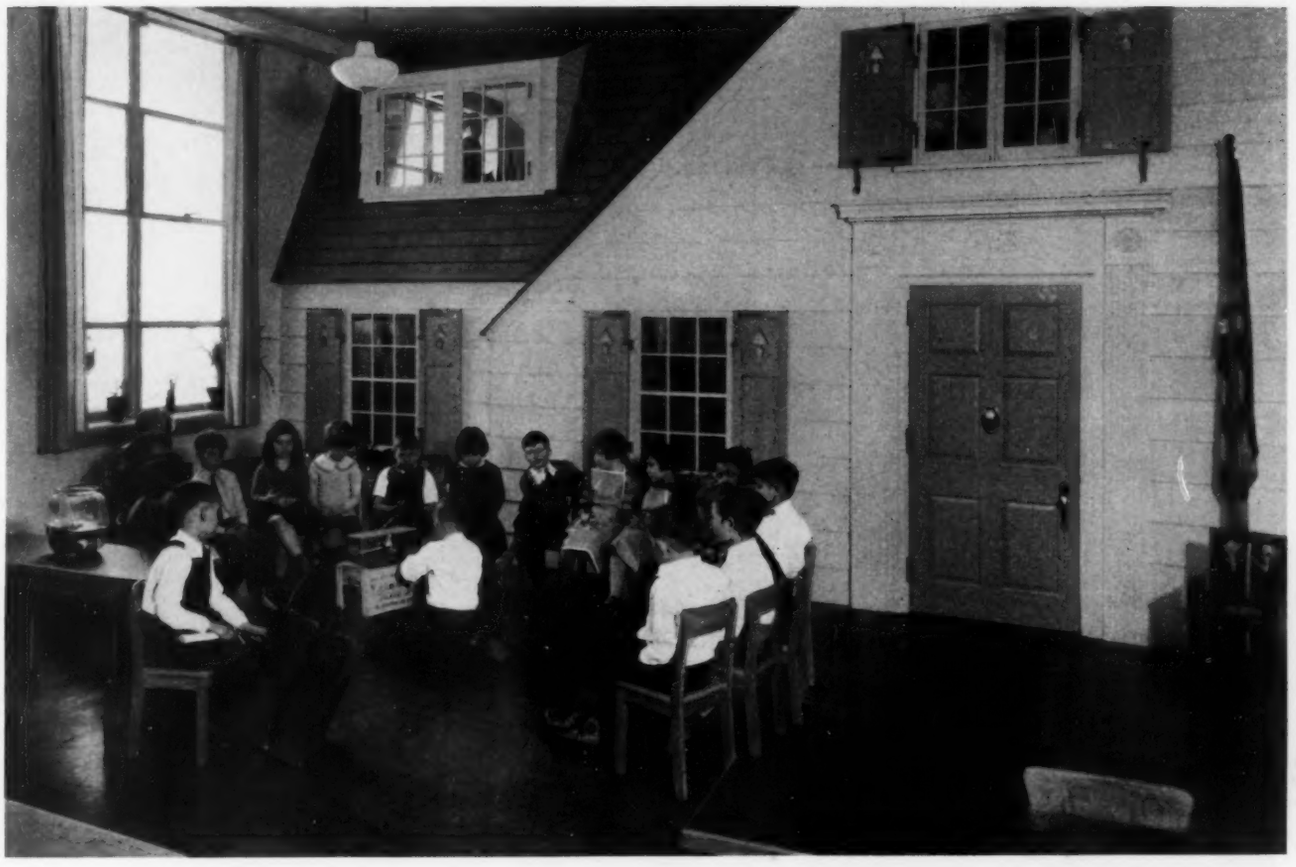
## Combining Summer School With a "Camping Out" Vacation

For those superintendents, principals and teachers who would like to combine going to school this summer with a genuine "camping out" vacation, the University of Wisconsin, Madison, has provided a tenting colony about two miles from the university.

This plan has been made "to permit families (married couples or children accompanied by parents), one or more members of which are registered in the summer session, to tent upon university lake shore property. A well, a pier, comfort stations and tent platforms are provided. Mail delivery is available. Families must provide their own transportation, tents and equipment."

Thus summer session advantages may be combined with outing life, and expenses reduced below the cost of rooming and boarding in the city.



# A School Based on the Ideals of the White House Conference

*At the Ann J. Kellogg School, Battle Creek, Mich., exceptional children are given every opportunity to develop in proportion to their abilities and in spite of physical handicaps*

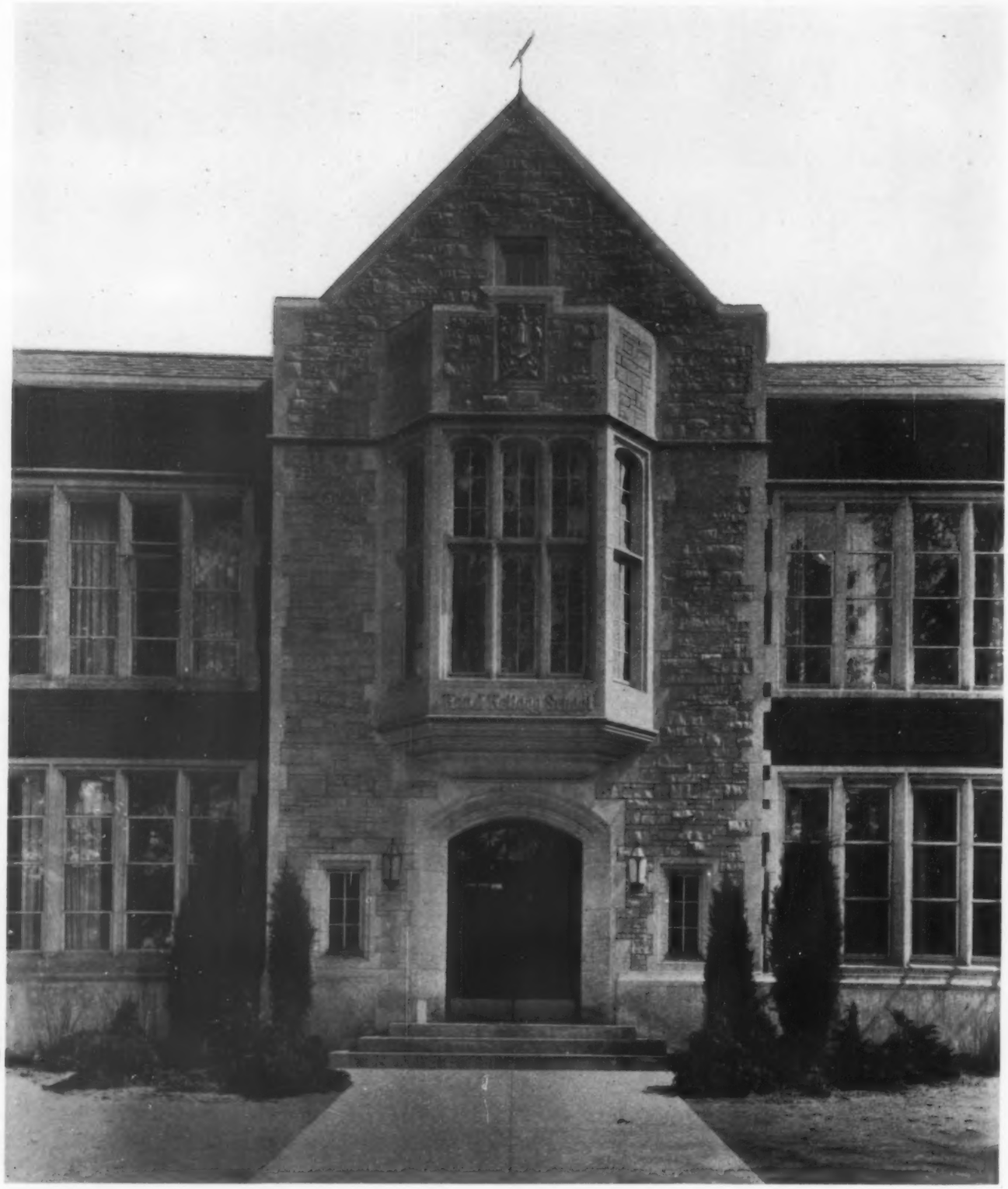
By ALBERT KAHN, INCORPORATED, Architects and Engineers, Detroit

ON Tuesday, November 24, 1931, the Ann J. Kellogg School was dedicated to the cause of the emotionally handicapped, crippled and underprivileged children of Battle Creek, Mich.

The school was planned to embody the ideals set up by President Hoover's recent White House Conference on Child Health and Protection, and was made possible through the magnanimous gift of W. K. Kellogg in memory of his mother, Ann J. Kellogg, who was a pioneer school teacher, and whose sons and grandsons attended the old No. 3 School on the site of the new edifice.

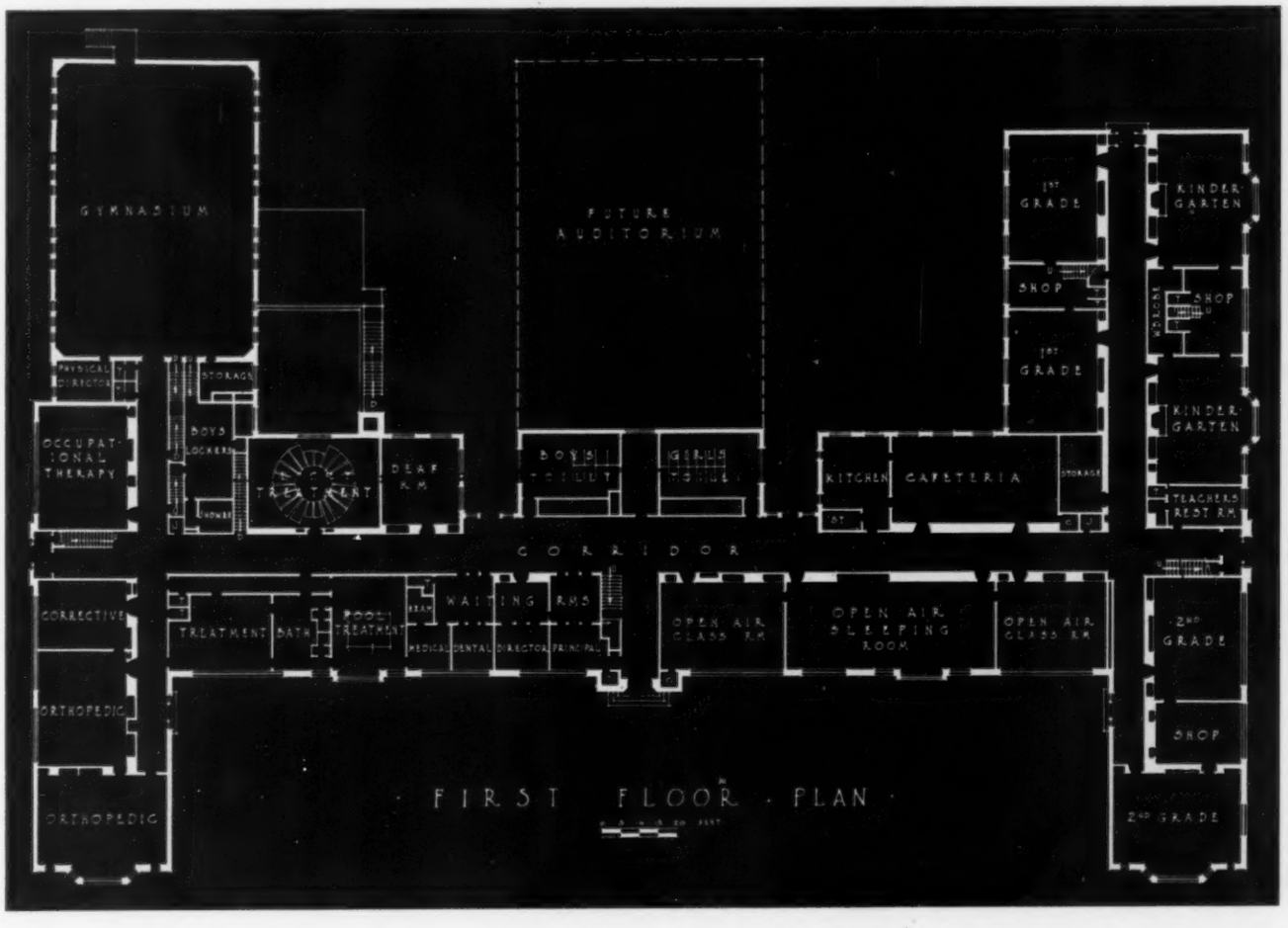
The school aims and was particularly designed to give opportunity for the selection, treatment and education of all types of exceptional children —the blind, the hard of hearing, speech defectives, the crippled, the undernourished, the retarded, the neurotic, the socially maladjusted, as well as the normal and especially gifted child.

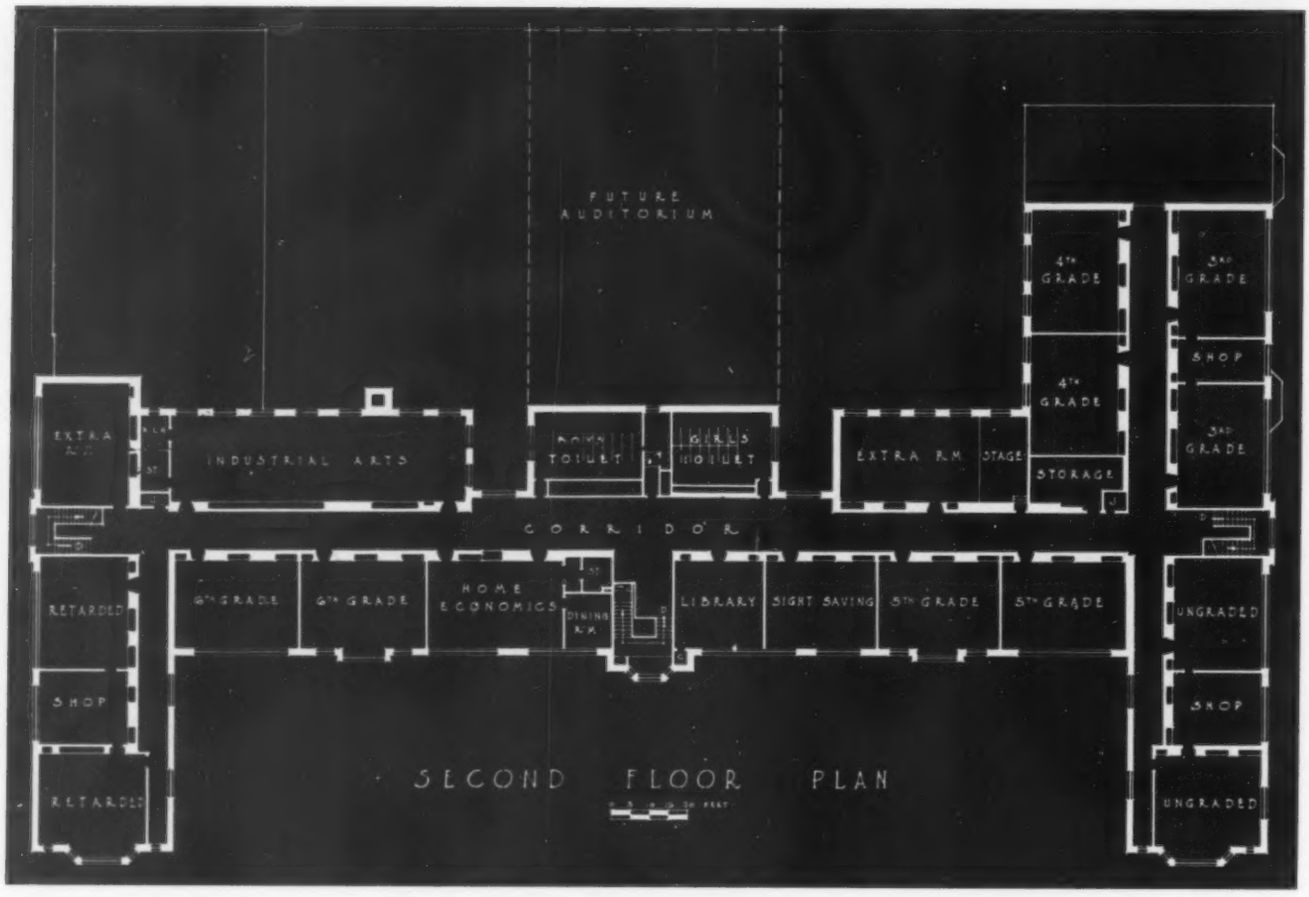
The building is situated on a shaded residential street in the immediate vicinity of Ann J. Kellog's first home in Battle Creek. Its dimensions are 318 feet by 190 feet and it has accommodations for 700 pupils. All the rooms are excellently lighted and ventilated. The building contains an attractive and spacious library, a cafeteria fully equipped for the teaching of modern cookery and a spacious, well equipped gymnasium. Eight classrooms for the lower grades are equipped with auxiliary industrial workshops, and there is a health



*The Ann J. Kellogg School, Battle Creek, Mich. Here the blind, the hard of hearing, speech defectives, the crippled, the undernourished, the retarded, the neurotic, the socially maladjusted, as well as normal and especially gifted children, receive individual instruction and treatment.*

*In the school cafeteria special attention is paid to anemic, malnourished and underweight children, who are provided with milk, cereals and other wholesome foods.*






*The school's occupational therapy courses, carried out in the room pictured below, include sewing, weaving, typing, woodworking and other occupational exercises that are creative and remedial.*

suite consisting of examining rooms, a clinic, a dental room and offices.

The special rooms for kindergarten and first grade pupils create a favorable impression on adults and children alike. Built between the two kindergarten rooms on the first floor and with entrances on either side is a miniature house, the lower floor of which is devoted to an industrial shop, the second floor being partitioned into two playrooms. The façades of this miniature house form the side walls of the kindergartens. One façade is in the old English style, and the other is in the French style. Between the two first grade rooms on the first floor is built another miniature house which has a colonial façade on the one side and a Spanish façade on the other.

*"Sunshine" baths are given in this well equipped solarium, where pupils recline on cots arranged in a circle below the carbon arcs suspended from the ceiling.*

### *Workshops Are Well Equipped*

Various workshops in the school are equipped for woodworking, mechanical drawing, clay modeling and firing, sheet metal work, electricity, household mechanics and printing.

The school is divided into three departments. Two of these, the elementary and the junior high, are organized for normal children. The third department is organized for the special education of children of all types, normal as well as abnormal. This department makes an analysis of the mental, physical and emotional status of the child to eliminate or to minimize, as far as possible, his handicaps and to assist him in the discovery of his interests and aptitudes.

A special attempt is made to determine the outstanding ability and aptitude of the pupil, and adjusted program classes are provided for those who experience difficulty with the academic phases of the regular class work.

Since the home environment and the physical health of children are considered important factors in their mental health and consequent social adaptability, those pupils who are unable to adjust themselves to life in a sufficiently satisfactory manner are placed in social adjustment classes.

Pupils in the lowered vitality group are placed in open air classes. The large percentage of anemic, underweight and malnourished children enrolled in the school are provided with rest, milk, cod liver oil, "sunshine" treatments and suitable physical

exercises. The rooms in which these handicapped children work are always kept, as nearly as possible, at a temperature of 60° F.

In the special education department, the orthopedic section is the most extensive on account of the equipment and personnel required in its administration. The hydrotherapy room is equipped for warm water treatment, whirlpool and brine baths. The warm water pool, kept at 95° F., is used for the reeducation of paralyzed muscles. The buoyancy of the water facilitates exercise and the heat stimulates the circulation and assists the pupil to relax. The whirlpool produces an effect equivalent to a general massage.

Special lamps and bakers are used in the physiotherapy room to reeducate muscles by heat treatment. The physical therapy room which is used for corrective physical exercises is equipped with a punching bag, steel bars, a spastic ladder and mats.

The work in physical therapy is supplemented by that in occupational therapy which provides therapeutic exercises that are interesting and creative as well as remedial. It includes units in such work as sewing, weaving, cooking, clay modeling, typing, printing, woodworking and basketry.

"Sunshine" baths are given in a well equipped solarium. Reclining cots are arranged in a circle below the source of light radiated from four special carbon arcs suspended from the ceiling.

Special attention is devoted to eye hygiene and to the conservation of sight in the sightsaving classes. Here the equipment used includes heavily outlined maps, twenty-four point textbooks and special desks. The blackboards are all tilted and the furniture is dull finished to eliminate glare. No pictures, or anything including detail or likely to cause eye strain, are used. Children who are blind and those whose vision is deteriorating, such as the progressive myopic, are taught to read Braille.

*Providing for the Specially Gifted*

Children who are so deaf that they are handicapped in attempting to carry on ordinary conversation are taught speech reading or visual hearing. Moving pictures and other special equipment are employed to develop the ability to use the various organs of speech properly and to produce sounds that the pupils themselves have never heard.

Classes are included for speech correction of pupils with such defects as lisping, stuttering, stammering and cleft palate.

Specially gifted children often find ordinary school work monotonous. Generally, these pupils are able to carry a greatly enriched program with no more effort than is required of the ordinary child to do the work of the regular grade. These pupils, organized into major work groups, can learn to do dramatic work in foreign languages, creative work in music and art and elementary experiments in science at early grade levels. They also learn to show initiative and assume responsibility in accordance with their natural endowments.

A special reading group has been formed for pupils who experience severe difficulty in reading but whose abilities are not otherwise retarded. This work involves diagnoses of the particular difficulties, as well as private tutoring and drill to overcome them.

As previously stated, the Ann J. Kellogg School is the first of its type to be constructed in this country. The planning of the building and the selection of the special equipment required in the various departments necessitated considerable research work on the part of the architects. They were ably guided by Dr. William G. Coburn, superintendent of schools, Battle Creek.

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## What the School's First Aid Outfit Should Include

"If your school does not already possess a first aid outfit, would it not be well to make a beginning now?" asks a bulletin sent out by the Alabama Department of Education. Some suggestions for such an outfit are given by the bulletin as follows:

Tincture of green soap for washing sores.

Lugol's solution or tincture of iodine for application to wounds and abrasions.

Some form of surgical cream for infected sores.

Oil of cloves for toothache.

Mustard as an emetic in case of poisoning.

Aromatic spirits of ammonia for use in fainting and loss of breath.

Bicarbonate of soda for burns or indigestion.

Talcum powder for chapping or sunburn.

Absorbent cotton, antiseptic gauze, bandages, adhesive tape, tourniquet, splints, scissors, paper towels, a teaspoon, a drinking glass and safety pins.

Ordinary pure cream is good for burns and for insect bites.

Any or all of these items may be procured at almost any drug store for a few cents each. The manual training class might construct a cabinet for holding the outfit. Many schools have a hospital or rest room containing a cot and blankets, a table and chair and a medicine cabinet with a clinical thermometer included in its equipment. The principal or the health instructor should have charge of the cabinet.

# Granting the Public School Teacher Her Seventh Year

*The practice of giving sabbatical leave is no longer confined to colleges but is growing in popularity in the public schools, according to information revealed by this nationwide survey*

By HARRY F. YOUNG, Western College for Women, Oxford, Ohio, and WILLIAM A. COOK, Professor of Education, University of Cincinnati

ALTHOUGH sabbatical leave is no longer regarded as a novel practice in higher education, the application of the principle on the elementary and secondary levels is still in what might be termed a strictly experimental stage, with many interested observers but few participants.

It is not difficult to accumulate a bibliography of forty or fifty references on the subject, but almost all of them have appeared since 1920. They might be classified principally as *ex parte* discussions of a theoretical tone and almost propagandistic in nature, although some material of the "case study" character exists.

The only serious attempt to study the movement was made by the National Education Association, the research division of which presented a report at the meeting of 1927. It was based upon a questionnaire sent to cities of over 10,000. The result was an analysis of practice in thirty cities which recognized leave with some salary.

The study here to be reported was undertaken in March, 1930. The data are drawn mainly from three sources: (1) a questionnaire to superintendents of the 2,877 cities over 2,500 in population; (2) a questionnaire to all teachers in the schools of these cities who had taken advantage of leave; (3) a request to all state departments of public instruction for information regarding legal enactments, administrative rulings or judicial decisions which bear upon sabbatical leave in their territory.

To the first questionnaire 2,006 replies were received; to the second, 130; to the third, 47, with material from the District of Columbia in addition. The response to the first questionnaire was over 70 per cent, and to the second it was over 60 per cent.

"Sabbatical leave" is understood to mean a leave of absence covering one semester or more of the school year, for professional improvement or some other desirable purpose, with some salary during such leave. But since there are many cities which, with or without definite regulation, grant leave to teachers without any compensation, data from them also were included in this study for the reason that it seems logical to assume that such cities are seeking to accomplish practically the same purposes as the cities following a sabbatical plan, and that as finance permits they will join the ranks of the sabbatical cities.

The complete returns indicated 79 cities following what might be considered a sabbatical plan, and 242 others granting leaves without any compensation. Twenty-five of the latter report that

SIZE OF CITIES GRANTING SABBATICAL LEAVE

| *Plan of Operation* | *Size of City* 2,500-10,000 | 10,000-30,000 | 30,000-100,000 | Over 100,000 | *Total Cities* |
|---|---|---|---|---|---|
| Definite sabbatical plans | 32 | 11 | 17 | 19 | 79 |
| Definite plans for leave with no compensation | 62 | 31 | 23 | | 116 |
| Leaves granted, with no compensation | 85 | 38 | | 3 | 126 |
| Total granting leave for professional improvement | 179 | 80 | 40 | 22 | 321 |
| No leave granted | 1,290 | 283 | 84 | 28 | 1,685 |
| Total | 1,469 | 363 | 124 | 50 | 2,006 |

they are now considering the adoption of a sabbatical plan. All states except Delaware, Nevada and New Hampshire were represented by one or more cities granting leave to some degree. All other states except Florida have at least one city which follows either the sabbatical plan, or has some other definitely regulated procedure for permitting leave. Twenty-five states are represented by one or more cities that may be considered sabbatical.

### *What the States Are Doing*

That the custom of leave, with or without compensation, is not confined to large cities is apparent from the accompanying table.

It is, of course, only natural that the percentage granting sabbatical leave, or leave under any circumstances, should run highest in the larger cities. It might be remarked here that, although on all points of inquiry data were segregated according to size of city, no significant difference in administrative practice was discovered.

One hundred and twenty-two systems of the 321 involved reported the length of time their plan of leave had been in operation. Only two date back as far as thirty years—those of Glencoe, Ill., and Alameda, Calif. The movement gained headway slowly until 1920. Eighty-five per cent of the present plans have originated in the last ten years, and nearly 60 per cent in the last five years.

Alabama, Indiana and Maine are the only states which have provided for leaves of absence by statute, and of these three, Maine alone authorizes some compensation for leave during the school term. The law there limits sabbatical leave to half pay for not more than one year, after seven years of service. A law to permit sabbatical leave in the District of Columbia was introduced in the last Congress. Such a law has twice been before the California legislature. On the last occasion it passed both houses, but was vetoed by the governor.

### *New Jersey's Progressive Attitude*

To this scanty statutory sanction should be added the progressive attitude of the state department of public instruction in New Jersey, which has taken the ground that a teacher who has been granted a sabbatical leave by the employing board of education is not to be considered as released during that period from actual service to pursue her own affairs, but merely as released from one particular phase of her professional activties, namely, teaching.[1]

Unfavorable rulings with reference to sabbatical leave have been made in several states: in Iowa and Arizona, by the attorney general; in Massachusetts and Indiana, by the state authority having supervision of municipal accounts. While the rulings in the first two of these states appear to be obeyed, seven cities in Massachusetts and three in Indiana are actually allowing some compensation at present to teachers on leave.

Local legal authorities have been responsible for opinions adverse to sabbatical leave in certain cities in Missouri, Michigan, New York and Ohio. Here again adherence to legal advice seems not at all close. Michigan has four cities now allowing compensation, New York has thirteen and Ohio has one, while Kansas City circumvents the possibility of legal complications by granting to teachers who return from leave a bonus of $20 a school month for the five years following.

No court decisions are reported on leave for elementary or secondary teachers. It would seem that in not over two or three states where the adoption of sabbatical leave is really desired by school authorities has any legal difficulty sufficed to prohibit the practice absolutely. When legal requirements of actual teaching service for each payment to a teacher stand in the way, the plan of paying a bonus on return can be followed. It is not so satisfactory, and will often make it impossible for teachers to take leave. At the same time, it will assure the return of the teacher to the system which has extended him this recognition. A five-year period may be too long over which to extend the bonus. Winnetka, Ill., allows a bonus of a fourth of a year's salary in each of the two years following return from leave.

### *Advantages Outweigh Disadvantages*

The advantages and disadvantages of leave are variously expressed by writers, administrators and teachers. The same idea may be couched in a variety of forms, and perhaps the same form is differently interpreted by different persons. Nearly 500 superintendents of systems not practicing leave expressed their convictions of the gains or losses that such a custom might produce. In addition, 154 superintendents and 130 teachers, all from systems practicing leaves, expressed their opinions. The number of superintendents and of teachers mentioning disadvantages was materially less than the number mentioning advantages. The total number of mentions of advantages or disadvantages were as follows:

| *Mentioned by* | *Advantages* | *Disadvantages* |
|---|---|---|
| Superintendents unfamiliar with leave | 1,226 | 558 |
| Superintendents familiar with leave | 370 | 104 |
| Teachers familiar with leave | 484 | 84 |

It appears from these statistics, crude as such

[1] Education Bulletin, State Department of Education, New Jersey, XVI (Jan., 1930), 228.

a measure as mere mentions is conceded to be, that the popularity of leave with both teachers and superintendents greatly exceeds its unpopularity, that those familiar with leave at first hand evaluate it proportionately more highly than those unfamiliar with it, and that teachers are more enthusiastic about it than superintendents.

### *How Leave Is Utilized*

The data were compressed into some thirty statements of a favorable nature, and half as many of an unfavorable nature. From these the following were selected on the basis of frequency:

*Advantages*

1. Study or professional improvement.
2. Recreation and recuperation.
3. Renewed interest and enthusiasm.
4. Increased efficiency.
5. Opportunity to travel.
6. Broadened outlook.
7. Opportunity of teacher to get out of a rut.
8. Longer tenure of teachers.
9. Valuable suggestions brought back to the system.
10. Development of higher professional attitude.
11. Security of position on return.
12. Making new contacts.
13. Increase in salary.
14. Observation and experience in other school systems.

*Disadvantages*

1. Loss of teacher to another system.
2. Problem of the substitute.
3. Increase in the salary budget.
4. Interference with work.
5. Misuse of time by teacher on leave.
6. Difficulty of selecting teachers for leave.
7. Public sentiment.
8. Loss of salary to the teacher.
9. No salary increase on return.
10. Difficulty of readjustment on return.

It will be inferred from a casual glance up and down these two lists that some reflect more the attitude of teachers and others that of superintendents. Of the advantages it might be said that the rank of the first seven with superintendents and teachers is much the same. Exceptions are the higher rating given by superintendents to No. 8, No. 9 and No. 10, and the much higher rating given by teachers to No. 12. In the list of disadvantages No. 2 alone is prominent in the minds of both superintendents and teachers. The rest of the first seven appeal to superintendents more or less strongly, and to teachers little or not at all. The last three of the list are hardly mentioned by superintendents, but they are more prominent than any others in the minds of teachers.

The activities of teachers on leave are revealed to some extent by educational literature, but primarily by the questionnaires returned by 130 teachers who had been on leave. The returns from the latter indicate the following frequency of activities.

| *Activity* | *Frequency* |
|---|---|
| Work toward an A.B. degree | 60 |
| Travel | 41 |
| Work toward an A.M. degree | 29 |
| Rest | 26 |
| Restoration of health | 17 |
| Work to satisfy certification requirements | 10 |
| Teaching elsewhere | 8 |
| Other gainful employment | 4 |

Certain other pursuits were mentioned. The high frequency of some of the foregoing shows that a preponderant number of the 130 teachers were engaged in serious study or somewhat expensive travel, while an inconsequential number regarded leave as a means of possible financial gain. The experiences of some were extremely varied and would be highly suggestive to an administrator planning activities for a period of leave.

The chief administrative features of systems of leave may be indicated by summary statements better than by tabulations.

Length of prior service: No case of sabbatical leave is found with less than three years of prior service to qualify. The distribution is bimodal, seven and ten years being the high points. Seven years is favored. An interesting point here is the distinction in practice from that found in higher institutions, where six years is the generally accepted period of prior service. Nonsabbatical cities can afford to be more generous. They indicate three and five years as the modal points for required prior service. For a second leave most systems require the same amount of additional service as is specified for first leave.

Number of teachers simultaneously on leave: Several cities limit the number on leave at one time to an absolute number, but the majority set a percentage of the staff. No system feels able to go above 10 per cent. The median city feels that about 2 per cent is safe, to avoid disruption and still care for those who qualify in service and desire leave.

### *Bases of Selection*

Selection of teachers: In over a third of the systems the superintendent is the sole authority in the selection of teachers for leave, and in the other cases he acts with the approval of the board. The principal bases of selection in order of frequency are length of service, order of receipt of application, merit (satisfactory service), need for study, distribution by schools, and probable advantage to the system. Usually more than one basis is employed. Probably the first two mentioned should be used as qualifying criteria, and the rest as determining criteria.

Actual number on leave, 1929-30: The total reported was 1,680. From cities over 100,000, the number was 1,440. A thousand were reported on leave in New York City alone.

Length of leave: Both a half-year and a year are found in practice, but the latter is so predominant that a half-year almost seems exceptional. Some projects can be carried through in a semester, but for sustained study or distant travel the year is preferable.

Purposes for which leave may be granted: These correlate closely with the activities practiced on leave. Study accounts for half the cases. Considerations termed "health" and "rest" combine to form a smaller total, while travel falls to third place, doubtless because of the heavier expense.

*An Incentive to Further Preparation*

Program of activities approved: Sabbatical cities are likely to ask the teacher going on leave to submit for advance approval a program of his contemplated activities. Nonsabbatical cities lay little emphasis on this. Similarly, a report is expected to be filed on return from leave in most sabbatical cities, while the reverse is true in cities of the other group. Only eight sabbatical cities permit a teacher on leave to engage in gainful occupation, while fifty-three refuse such permission. Even the nonsabbatical cities, insofar as they commit themselves, are about evenly divided on the question.

Return to service after leave: The basic assumption underlying leave is the future gain to the system as well as to the teacher, rather than a reward for past service. Two-thirds of the sabbatical systems require the teacher to return to service with them after leave. Some specify no set period, but the general custom is a definite period, almost equally likely to be one, two or three years. Thirty-three nonsabbatical systems require return, but only eight of them are specific—one sets two years and seven set one year.

Compensation: This factor is so important in determining whether teachers can afford leave that the results are given in tabular form:

| *Compensation* | *Number of Cities* |
|---|---|
| Full pay | 10 |
| Three-fourths pay | 1 |
| One-half pay | 35 |
| One-third pay | 1 |
| One-fourth pay | 1 |
| A fixed amount | 14 |
| Full pay less cost of substitute | 17 |
| | 79 |

The fixed amounts vary widely, falling as low as a bonus of $100 on the following year, and running as high as $1,000. The most general practices are easily seen to be three in number, half pay, full pay less the cost of a substitute and full pay.

Effect on salary schedule and retirement status: Sabbatical cities are inclined to allow the salary increment during the year on leave, as though the year was spent in regular service. Nonsabbatical cities of course incline in the opposite direction. However, thirty-three of them do recognize the salary increment and hence become sabbatical to that degree. The increment might be considered a bonus paid on return from leave. Both classes of cities are disposed to let the period of leave count as regular service in determining retirement status, but sixteen sabbatical systems deny the teacher any service credit toward retirement while he is on leave.

Current financial conditions are unfavorable to any marked extension of sabbatical provisions. There is a probability that the practice in elementary and secondary schools is, like a number of other movements of the past, a descent of a higher institutional practice to a lower level of the system, without fully analogous conditions as a justification. In some respects, at least, the two situations probably are not analogous. The purpose of this article is primarily to present the current condition for the information of those upon whose decision the adoption of sabbatical leave for public school teachers must depend.

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## A Group Institute Plan and Its Success

A group type of institute was inaugurated this year at the biennial meeting of the California Teachers Association, northern section, says the *Sierra Educational News*. The morning of each day was devoted to conference meetings in small groups rather than to general meetings.

Each teacher was requested to elect a topic from a list presented several weeks in advance of the meeting. They were then assigned to groups of twenty to forty persons.

At the last session the teachers were asked to express their opinions of the new plan. With few dissenting voices, the teachers favored the group plan. They favored also as a group leader an instructor who could lecture and answer questions with some authority, rather than a member of their own group. They preferred also that demonstration should be followed by discussion. Other suggestions were: definite preparation in advance by member of the group on some phase of the topic to be discussed; greater care in assigning teachers to groups.

# A School System That Makes Health a First Consideration

By G. H. SANBERG, Superintendent of Schools, Rochester, Minn.

A NATIONALLY known physician made the statement recently that medical science had accomplished more in the prevention and cure of disease during the last twenty-five years than in all the preceding ages. At first we were inclined to doubt this astounding declaration, yet men now in their fifties will recall practices common in their boyhood days for warding off illness and for the alleviation of pain which were no more intelligent than the methods now employed by the witch doctors of the jungles. Fifty years ago many people were to be found with nuggets of vile smelling asafetida concealed about their persons so that they might be immune from epidemics.

Twenty-five years ago Congress passed the first food and drug law. People were greatly surprised to learn how many impure foods and drugs they were consuming and now are willing to pay one cent per capita for the enforcement of this law because it is a definite means of protecting their health.

Do patrons of the schools understand the importance of health education and have school administrators been negligent in giving publicity to the subject? Once the public was aroused by learning the facts concerning the need for a pure food law, Congress at once passed the required remedial legislation. In like manner, when people understand the need for health education in the schools through an intelligent and concretely illustrated presentation of the facts based on medical investigations, the means necessary to provide health programs will be forthcoming.

Our leaders in education no longer consider

health as an incidental responsibility of the school but one of the vital elements of a general training, for they recognize that sound bodily function is intimately related to economic life, mental development and advancement in things artistic, moral and spiritual. Health is now placed first among the seven objectives or cardinal principles of education.

The purpose of this treatise on a health program for the schools is to draw attention to the need for more consideration of the subject and the possibilities for enlarging the scope of it in the smaller systems.

### *Mayo Clinic's Cooperation Is Valuable*

The schools of Rochester, Minn., are fortunate in the health program they are able to maintain at a minimum cost to the district because of the generous support and hearty cooperation of the Mayo Clinic. In many small cities clinics now are being established from which the schools should be able to receive material assistance in carrying forward their health activities.

The first step in a school health program is to be sure that the teachers are physically fit. No teacher should be given a contract without first passing a complete physical examination and indicating her willingness to submit to an annual check up thereafter if the school administration deems it advisable.

This investigation of an instructor's health should consist of more than obtaining a clearance card without the physician's having really given a number of actual tests. The following form suggests the minimum requirements in the Rochester schools:

PHYSICIAN'S CERTIFICATE

I hereby certify that.....
has been examined by me with the following results:
Height..... Weight..... Age.....
Blood pressure .....
Blood count and hemoglobin.....
Pulse before and after exercise.....
Chest x-ray .....
Urinalysis .....
Eye, ear, nose and throat.....
Physical examination heart, lungs and abdomen..
.....
Certified by.....
Examining Physician
Date.....

In a recent compulsory examination of members of the teaching staff, a young man who appeared the most robust of the group was found to be a victim of tuberculosis.

The importance of soap and water in destroying bacteria is not generally realized. Experiments show that a dirty skin has far less power to destroy bacteria than a clean skin. As a result a person increases his own hazards to infection by carrying to the mouth or nose microbes that can enter these regions and cause disease. These facts, which indicate how easy it is to carry germs to the mouth and nose because the hands are unclean, emphasize the value of beginning a definite course of training in cleanliness in the elementary grades.

In many schools this instruction is given through what is known as the morning inspection period or checking on health chores. In some instances the teacher may do the inspecting but a better plan is to have pupils assigned to the task who report results to the teacher. The following observations are usually made: (1) clean hands, face, ears and neck; (2) teeth brushed; (3) a clean handkerchief. At the same time other health matters are checked, such as whether the children drink only water and milk, sleep with the windows open and get the proper number of hours of sleep.

To supplement this program, there should be at least one period a week devoted to specific health instruction. The amount of time will vary with the grade. In the intermediate classes at least thirty minutes should be devoted to the subject, and textbooks suited to each grade should be provided for the pupils.

### *Laws That Govern Minnesota Schools*

Minnesota in common with some other states has many laws to govern the erection of public school buildings. First, the plans of the proposed structure must be approved by the state director of buildings and sanitation in order to determine that the rooms are of sufficient size, that there is the proper amount of light in proportion to floor space, that an adequate system of heating and ventilation is provided and that other facilities such as drinking fountains, toilets and playgrounds are given proper consideration.

As yet no specific requirement is made regarding the question of the humidity of the air except that vapor pans must be installed where stoves or furnaces are used, and as a result about 70 per cent of the school children of the state are not affected by the law. It is also true that only a few schools pay any attention to the question of the humidity of the air in the rooms. In the Rochester schools all buildings are equipped with air washers, which of course not only cleanse the air of impurities but at the same time supply the moisture necessary in cold and dry climates. The amount of sediment collected each week in pans below water sprays would convince any doubter of the importance of having the air washed before

its advent into the schoolroom, and Rochester is not an industrial city. Members of the board of education who were familiar with conditions before and after air washers were installed are of the opinion that colds among pupils materially decreased after the pure humid air was provided. It would have been interesting had records been kept for a number of years regarding the effect upon pupils under the two conditions just mentioned.

*Pupil health officials of the class make their morning inspections and then report to the teacher any negligence in regard to clean hands, face and teeth.*

The last century has brought more improvements in home hygiene than all others combined. The developments in providing an abundance of light, heat, fresh air, running water and refrigeration have had much to do with producing healthier children and consequently with lengthening the span of life. When studies have been made, as in England, a definite relationship between the birth rate and housing conditions has been found.

The governments under which we live are doing much to improve hygienic conditions. According to the *American Journal of Public Health,* thirty million people or about 55 per cent of our urban population in this country are now protected by zoning laws. The school, in the interest of the child, should exercise its influence in maintaining healthful conditions in the home. In the Rochester system this is accomplished through the cooperative efforts of the school nurses and the visiting teacher. The common problems are lack of fresh air in sleeping quarters, too many persons occupying the same bedroom, distractions that prevent children from having the required amount of sleep and suitable environment for study.

Minnesota is generous in the state aid it allows for special departments, such as those caring for subnormal children, those who are deaf, those who have defective speech and those who should be in a sight saving class. As a result of this liberal policy on the part of the state, any school that has

five pupils whose intelligence quotients are between 50 and 80 may receive $90 per pupil as special aid. If there are at least five deaf children, a class may be organized, and the state will aid to the extent of $225 per pupil, and if the child is a nonresident an additional $135 is allowed for board and room. The financial aid given for children with defective speech is $1,350 per teacher doing such work, and for sight saving classes, $270 per pupil. Crippled children are also provided for by the state, which provides $225 per pupil.

An important department in the school health program is a dental clinic or some other means of caring for the teeth of those children unable from an economic standpoint to obtain proper treatment. Rochester provides dental service only for pupils in the first six grades and the kindergarten, except in emergencies, when high school pupils will be cared for.

The school nurse has charge of determining what pupils shall receive treatment according to the following schedule of fees:

1. Children from homes where the family income is more than six dollars a week for each member of the family are not entitled to treatment.

2. Children from homes where the income for each member of the family is more than three dollars a week but not more than six dollars may be treated by paying 20 cents for each treatment.

3. Children from homes where the family income is no more than three dollars a week for each member of the family are entitled to treatment free of charge except for the registration fee of ten cents.

4. All fees must be paid in advance.

A dentist is engaged for half days during the school week. The enrollment in the first six grades and the kindergarten for 1930-31 was 2,131. Four hundred twenty-seven children were treated by the school dentist, the treatments consisting of 1,190 fillings, 368 extractions and 281 involving prophylaxis. The yearly fees amounted to $162.48.

IMPROVEMENT IN DENTAL CONDITIONS IN ROCHESTER, MINN., SCHOOLS FOR ONE SCHOOL YEAR

| | *Percentage of O.K.'s at Beginning of School Year* | *Percentage of O.K.'s at End of School Year* |
|---|---|---|
| Edison | 69 | 93 |
| Lincoln | 53 | 81 |
| Hawthorne | 34 | 85 |
| Holmes | 37 | 98.91 |
| Northrop | 34 | 90.8 |
| Central | 41 | 88.7 |
| Oral Day | 60 | 83 |
| Special help | 49 | 83.5 |

*While the dental clinic doctor cares for the patient, the other children are kept busy so that their attention will not be directed to any unpleasantness that may await them.*

*Specialists in pediatrics from the Mayo Clinic render a valuable service to the schools in the thorough physical examinations that they give the pupils.*

A dental survey is made annually of all grade school children. Each child is given a report regarding his teeth which he has to take to his parents. To stimulate interest, dental wall charts are placed in each room. As the child obtains the correction, a gold star is placed after his name. The local dentists give splendid service, and are always willing to cooperate. The table on page 46 shows the percentage of improvement in dental conditions.

REPORTS OF PHYSICAL EXAMINATIONS IN ROCHESTER SCHOOLS

| *Defects* | *Number* | *Corrections** | *Defects Remaining* |
|---|---|---|---|
| Vision | 137 | 67 | 70 |
| Nose and throat | 253 | 93 | 160 |
| Posture | 347 | 76 | 271 |
| 10 per cent underweight | 147 | 28 | 119 |
| 20 per cent overweight | 38 | 0 | 38 |
| Deformities | 18 | 16 | 2 |
| Heart conditions | 10 | 8 | 2 |
| Nerve conditions | 11 | 3 | 8 |
| Ear | 8 | 3 | 5 |
| | 969 | 294 | 675 |

*The corrections are for a two-year period.

The schools should provide, as far as possible, proper conditions for developing healthy bodies so that the children may resist disease. In addition to the activities dealing with the general growth of the child, provision is made to take care of undernourished children who are encouraged to drink a glass of milk daily at the morning recess period.

All normal pupils are weighed and measured twice during the year. The underweight and overweight children are weighed every six weeks. All underweight children are urged to have milk at the morning recess. Free milk is provided by the local Kiwanis Club to pupils who are not able to buy it.

Physical examinations are conducted every year in alternate grades in the entire school system. Physicians of the Mayo Clinic make these examinations without charge. In the Rochester schools 1,810 physical examinations were made last year. The table on this page shows the findings.

The nurses give the eye tests which are completed previous to the physical examination so that the physician knows the eye condition when he examines the child. If the school work is to be made valuable it is necessary to make contacts in the homes.

Through the entire system, physical education has a definite part in the daily recitation schedule. The aim is to have boys and girls acquire abundant health through the development of the size and control of their muscles, to make them organically sound, to set up right standards of living and to establish ideals that are worth while. Attention is given to corrective work, and the annual posture contest emphasizes this feature of the health program. Last year during vacation 2,000 school desks were reset so there would be the proper distance between their tops and backs and better posture would thus be encouraged. Carefully supervised recreational facilities are provided during the school year, and during the vacation period the school playgrounds are in charge of trained directors. A swimming supervisor is in charge of the high school pool which is open for the use of all grade children of the city for ten weeks during the summer.

Diphtheria prevention is carried on annually. This year 605 children were given the immunization treatment, which consists of two doses of toxoid at three-week intervals. After six months the child should be given the Schick test to determine whether the treatments were effective. There has not been a case of diphtheria among Rochester school children since January, 1928. At that time a child developed a throat paralysis. The family physician took a throat culture and found diphtheria. This child had been attending school but no more cases developed from the contact. This proved to us the value of diphtheria prevention. Up to the present time about 3,500 children have received the protective treatment.

In the last five years but thirty cases of diphtheria have been found in the city. None of these patients should have died with the disease under modern methods of treatment. Twenty thousand people exposed for five years are equivalent to 100,000 exposed for one year. Of these thirty cases, seven were contracted in other places and three resulted from contacts with known cases. Twenty cases developed from contact with undiscovered cases.

### *Reactions to the Schick Test*

Examination of 883 school children six to eighteen years of age in four age classifications showed that 362 were negative to the Schick test. The groups that had had their tonsils removed were found to be about as likely subjects for diphtheria as those who had not, at least as far as the Schick test showed.

Until a few years ago, little attention was paid to the physical examination of high school pupils. Because a young person appeared to be well physically, it was taken for granted that he was free from disease. Examinations revealed that tuberculosis was present in its early stages of development in 11 per cent of our high school pupils, and because of its early discovery they were treated successfully.

Mantoux tests (tuberculosis skin tests) were made on 1,328 high school pupils with the following results: 154 or 11.5 per cent gave a positive reaction; 11.4 per cent were boys and 11.7 per cent were girls.

Chest x-rays were made in 152 of the 154 positive cases; 23 cases or 15.1 per cent showed some abnormality in the x-ray. The x-ray findings in the 23 cases were: 13 cases, Ghon tubercle; 6, calcified glands; 1, healed tuberculosis in the right apex; 2, pleural adhesions; 1, scoliosis.

### *Results of Physical Examinations*

The plan is to follow up all positive Mantoux tests to try to learn, if possible, the source of the exposure. A public health association conducts a chest clinic monthly and any person is eligible. The doctor, an expert in tuberculosis, is in charge of the clinic and conducts the examinations and gives advice.

The results of the physical examination of the high school pupils for 1930 were:

Number examined, 1,328, ages eleven to twenty years.

Number of defects per person: 41 per cent, less than 3 defects each; 5 per cent (66), no defects; 15.8 per cent, 1 defect; 20.7 per cent, 2 defects; 24.0 per cent, 3 defects; 18.9 per cent, 4 defects; 10.4 per cent, 5 defects; 4.0 per cent, 6 defects; 0.8 per cent (10), 7 to 8 defects.

Nutrition: normal, 82.5 per cent (20 per cent over and 10 per cent under); underweight, 8.0 per cent (boys 16 per cent, girls 12 per cent); overweight, 5.0 per cent (boys 6 per cent, girls 5.5 per cent).

Vision (20 to 30 or better o.k.): defective, 10 per cent boys, 15.3 per cent girls, 12.6 per cent total; correction attempted, 32 per cent boys, 45 per cent girls; correction obtained, 45 per cent boys, 75 per cent girls.

Teeth: malocclusion, 18 per cent boys, 13 per cent girls; poor care, 59 per cent boys, 25 per cent girls; caries, 20 per cent boys, 25 per cent girls; dental work, 59 per cent boys, 60 per cent girls.

Tonsils: enlarged, 46.2 per cent boys, 33.6 per cent girls; marked enlargement, 17.0 per cent boys, 10 per cent girls; removed, 41.3 per cent boys, 33.3 per cent girls.

Cervical adenitis: 59.6 per cent boys, 20 per cent girls.

Lymphoid pharyngitis: present, 12 per cent

boys and girls; with removed tonsils, 67.4 per cent; with enlarged tonsils, 32.7 per cent.

Thyroid enlarged: 5 per cent boys, 14.6 per cent girls; most frequently at age of fifteen years.

Posture defective: 46 per cent boys, 36.7 per cent girls.

Feet pronated: 40 per cent boys, 34 per cent girls; flat, 9.3 per cent boys, 11.3 per cent girls.

Rickets present: 5.9 per cent boys, 1.6 per cent girls.

Menstruation (onset from age of nine to sixteen years): nine years, 1 case; ten years, 1 case; thirteen years, 33 per cent, the largest group; difficulty at the time of periods, 8.8 per cent.

Skin disease: 4.6 per cent; 30 cases ringworm of feet; 10 cases scabies; 4 cases eczema; 10 miscellaneous.

Heart valvular lesions: 0.7 per cent; none decompensated.

Miscellaneous: 2.5 per cent.

The consent of the parents is obtained before any tests are made. The following is one of the slips sent out:

To Parent or Guardian:

Is your child safe from diphtheria? At no expense to you and with little inconvenience to your child he can be made safe.

The death rate from diphtheria in the United States is gradually rising. Rochester has been exceedingly fortunate in having few cases and those of a mild nature. We believe that this has been true largely because so many of the young children have had the benefit of toxin-antitoxin immunization.

To find out if your child is protected and to attempt to discover if there are other factors that enter into the production of active resistance against the disease, we are asking your permission to perform the harmless Schick test on your child.

The test is not painful. There is no general reaction following it. It occasions only the slightest inconvenience in the vast majority of cases.

If the Schick test shows that your child is not protected and you wish to have this treatment given, the health department will give it free of charge at the school. Three doses are required. They are to be given at two-week intervals, beginning next week.

Please sign below and return at once.

I hereby consent that my child .....
.....receive the Schick test and protective treatment against diphtheria.

Signed.....
Parent or Guardian

Future progress in health work in the schools lies along the following lines:

First, nurses should have more time for home contacts and follow-up work, as little is accomplished unless steps are taken to remedy the defects discovered.

Second, besides the work of the nurses in the home, there should be more publicity given regarding the importance of the school health program so parents will have the right attitude toward the health service provided.

Third, there should be a definite place on the weekly recitation program devoted to the child's health practices and his attitude toward health behavior.

Fourth, our so-called physical education should be more closely identified with the health department along all lines of corrective work.

Fifth, there should be a special fund for the use of the health department to provide treatment for those children who are unable for economic reasons to obtain relief.

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## How Porto Rican Children Benefit by Practical Schooling

Meals at one cent each, payable in produce when cash is not available, are served every day to 50,000 children in the schools of Porto Rico. The meals are prepared and served by girl pupils as part of their school training.

Theodore Roosevelt, in his last written review of education in Porto Rico, before his recent appointment by President Hoover to the governorship of the Philippine Islands, cites this as one of the many methods used in Porto Rico to "disseminate practical knowledge." The article appears in a recent issue of *School Life*.

"Each school in Porto Rico is built on a small farm from five to fifteen acres in size, which is cultivated by the boys under the direction of a farmer," Governor Roosevelt writes. "The crops raised are such as are profitable in the surrounding country. One-third of the proceeds goes to the boys; two-thirds is either sold for school funds or used in the school lunchrooms. Each boy is also encouraged to have at his home a small truck garden. These gardens are inspected by the school authorities, and prizes are awarded—useful prizes such as pigs, chickens or rabbits."

Barbering, carpentry and cobbling are included in the school training for boys. Useful articles such as chairs, tables, beds and washboards are produced in the manual training shops, and nearly all school furniture is made by school children. One house in which everything was made by the children cost approximately $250.

# When Is an Intelligence Test Intelligent?

*Though measurement of education may be said to have "arrived," it is valuable only in proportion to the intelligence manifested in its use*

By C. C. GROVER, Assistant Director, Department of Research and Guidance, Oakland Public Schools, Oakland, Calif.

MEASUREMENT in education is not new. It is as old as education itself and records of it can be found for many centuries back. Neither is it confined to progressive school systems; it is found in every village and rural school and in every class that is being taught. Whenever a report card is issued, a pupil passed or failed, given a diploma from a high school or a degree from a university, the outcomes of the educational process are being measured.

Scientific measurement, however, is comparatively recent and is usually thought of as having begun in the first decade of the present century and as having had its greatest development in the decade immediately following the World War. As its measuring instruments have become more refined, its application more extended, and its uses more appreciated and understood, scientific measurement in education has yearly become more and more indispensable in the supervision and administration of the public schools. It can probably be accurately said that the improvement and refinement of educational measurements and the remarkable increase in their use has been the most important single factor in the professionalizing of those employed in the public schools of America.

### *Why Educational Measurement Is Necessary*

The executives in any organization employing large numbers must make decisions upon many problems upon which adequate data for making sound decisions are not available. In other words, they must make the best guess possible and by trial and error methods see that the mistakes of today are not repeated tomorrow. Such procedures are costly, however, and are not tolerated when better methods are available. It is the function of scientific measurement in education to find the points of decision within a school system and to provide and evaluate the data relative to them so that the reliability of the decisions the school administrator must make are increased and the points upon which guessing must be done are reduced to a minimum. Every employee in a public school uses measuring instruments, and the more information he has upon them and the better able he is to understand and interpret his findings the better the school system.

### *Measuring Scholastic Aptitude*

Measurement in education is a broad field and includes such diverse problems as the ventilation of a classroom, the scoring of a school building, the rating of teaching efficiency and the administration and interpretation of an intelligence test. It is the purpose of the present paper, however, to consider only one phase of this field, that dealing with the measurement of scholastic aptitude and educational outcomes or in other words so-called intelligence tests and achievement tests in subjects usually taught in the public schools. In this field, as in most others dealing with public education, the thinking of the students of education today is considerably different from that of five to ten years ago. Certain trends may be recognized and such of these trends as affect the use of measurement in city school systems are listed and briefly discussed.

Since about 1918 the number of educational tests advertised for sale has increased tremendously. In 1927 Ruch and Stoddard stated that nearly five hundred separate tests and scales were on the market. In discussing this subject they say:

"These numbers, however, have little meaning other than to point to the growing interest in quantitative methods in education, since probably considerably more than half of the tests are almost worthless and possibly not more than one-fifth are deserving of use. Many are understandardized and

comparatively few have been critically validated or examined for their reliability. A number of tests of wide popularity have later been shown to be of doubtful merit and utility."[1]

### *The Passing of the "Age of Faith"*

This is a conservative statement and its acceptance by school administrators generally has produced a much more desirable attitude toward the testing movement. A test constructed by a professor of education in a college or university is not considered, solely because of its authorship, as suitable for the solution of all educational problems. Today, before a test is recommended for use in a city school system it is critically examined in the light of the uses it is intended to make of the results obtained. A test the reliability of which the author has not computed, for which he has not given the standard deviations of the scores used, or shown where the material for the test items was secured, or given his reasons for using it, or indicated how the test as a whole and the different items were validated, is not considered worth investigating. Standards for evaluating tests advertised are available and the point has been almost reached where these standards must be fully met before publication by a reputable firm can be obtained. In other words the "age of faith" in the measurement field is passing.

The mere giving and scoring of a large number of tests does not constitute a testing program. In too many school systems the closet in the principal's office is filled with tests that are never disturbed until a new assortment is filed away to share the dust covered shelves. Ruch and Stoddard say:

"The test movement has suffered greatly from educational 'faddism' with the result that many school administrators have been led to go through the movements of using tests in their schools under the mistaken idea that wholesale testing was an indication that they were being scientific and modern."

It is unquestionably true that the more the classroom teacher has to do with the measurement of the educational ability and achievement of the pupils in her room the more likely she is to be sympathetic with the program and to follow advice based upon the results obtained. While this general statement is true, like many other general statements it needs qualifying. A single course in "tests and measurements" often taken in the early years of the measurement movement does not qualify a teacher to choose the best tests, correctly to administer them, or properly to interpret their findings. Kelley takes the position that a knowledge of the probable error of a test score is necessary before advice based upon it should be given. He says:

"The psychologist alone should set the limits within which he is willing to testify, and very definite limits exist. These are defined by the probable errors of the measurements utilized. . . . Unfortunately there have been many test interpreters, so-called, who have thought and known little about this probable error. If a doctor of medicine hastily diagnoses a case as chickenpox and prescribes treatment upon that basis when there are forty chances in one hundred that it is smallpox, we should say either that he was ignorant of the full implications of the symptoms or irresponsible in interpreting them, and we should not forgive him if wrong, on the ground that he chose the more reasonable diagnosis—the one in which the chances were sixty to one hundred in his favor. Who causes the greater sorrow, the physician who wrongly diagnoses thirty in one hundred ailments or the school principal who wrongly judges intellect and effort and gives unsound advice to some thirty in one hundred of his graduating class? The onus is great in either case and is but little relieved by pointing with pride to the seventy correct diagnoses. Psychologists who do not know the probable errors of their judgments and qualify them accordingly have no more right to diagnose and prescribe than have equally incompetent physicians."[1]

### *Interpreting the Data*

A reasonable position is that the teacher should be encouraged to do those things which she can do well and be given advice and assistance when they are necessary, and the whole measurement program should be so planned that at least a minimum amount of objective data will be available on every pupil and these data will be used as fully as the ability and training of the teaching corps permit. Knowledge of the probable error of a test score does not mean that everyone using standard tests should be able to derive the formula for the probable error or even to understand its mathematical derivation. What is intended is that the concepts of "obtained score" and "true score" be fully understood, and the value of the probable error in expressing the relationship between them appreciated and used. To take the position that because a teacher does not approve of or is not interested in educational measurements none should be used in her room, is to take the chance of doing grave educational injustice to the pupils assigned

[1]Ruch, G. M., and Stoddard, G. D., Tests and Measurements in High School Instruction, p. 4, World Book Company, Yonkers, N. Y., 1927.

[1]Kelley, T. S., Interpretation of Educational Measurements, pp. 20-21, World Book Company, Yonkers, N. Y., 1927.

to this room, in which assignment, it should be noted, the parents have no choice.

In the early days of the testing movement the items most closely scanned by the administrator were the cost of the test, the time required for its giving and scoring and the reliability reported by the author. These items are as important as ever but it has come to be recognized that the requirements in respect to them vary according to the purpose for which the particular test is intended, for example, a survey test to be given to 10,000 children in which mean scores only are desired may be short, inexpensive, have a comparatively low reliability and still give satisfactory results, while the scores obtained from such a test used for the placement of individual pupils would be practically worthless. Moreover, the art of test construction has improved greatly in recent years and the methods of obtaining any desired reliability are well known, with the result that the greater number of the tests published recently have a satisfactory reliability.

### *Validity the Most Important Criterion*

The foregoing considerations do not affect the validity of a test. Validity is the most important single criterion for the judging of any test and no matter for what purpose it is to be used the results will be useful directly in proportion to the validity of the instrument chosen. It is a relatively simple matter to find tests constructed by well known test makers which do not measure the things they purport to measure and it is not safe to accept a test, for example, as a valid measure of arithmetic merely because the author has called it an arithmetic test. To measure arithmetic satisfactorily in any given situation requires a careful study of the items in the test, their relation to the placement of the same items in the course of study followed by the pupil to be tested, the difficulty of the test, the presence of obsolete material and other items.

This criterion of validity is more clearly recognized than it was a few years ago and test construction has improved correspondingly.

A consideration of the foregoing discussion of validity indicates the necessity of curricular achievement tests constructed to meet the needs of local school systems. It is evident that if the subject of long division, for example, is introduced in one school system in the high fourth grade and in another in the high fifth grade, a standard that is satisfactory for one school is unsuited to the needs of the other. More important still is the well known fact that the content of a test used in a school quickly affects the instruction in that school. For example, if an arithmetic test used a number of times as a measure of achievement in arithmetic in the high sixth grade contained examples in compound interest, it is likely that the high sixth grade teachers in that school would soon be teaching compound interest whether or not it was included in the course of study.

These considerations, together with the fact that local tests are much less expensive, have stimulated greatly the use of this type of material in many progressive city school systems.

The first few steps in the field of test construction will give ample evidence that some subject matter fields are much more difficult of measurement than others. Such tool subjects as spelling, handwriting, reading and arithmetic seem to yield most readily to measurement devices, and Rice, Courtis, Buckingham, Thorndike, Stone and others began work in these fields. Later, however, tests in the content subjects such as history, geography, English, art and music were published. These subjects are admittedly more difficult to measure than the tool subject and the first tests to appear on the market were not satisfactory.

Immediately a controversy arose in the educational world as to whether such a thing as the appreciation of literature could or should be measured. The test maker quoted Thorndike, Wood, Kelley, Ruch, Stoddard, Symonds and other psychologists, holding that if the objectives of any school subject could be stated and methods for realizing these objectives suggested the outcomes could be measured, while the test critic quoted various authorities in the different subject matter fields to the effect that such measurement was not only impossible but should not be attempted as the very attempt to measure it destroyed the thing itself.

### *The Results of the Controversy*

The controversy has largely subsided with each group going its own way, the test maker constantly improving his product and the test critic ignoring the instruments produced. Ruch and Stoddard conclude a discussion of the subject as follows:

"It is probably true that any field of knowledge which can be analyzed into its constituent unit skills, knowledges and abilities to a degree that permits the teaching of its subject matter by a method better than a rule-of-thumb can be measured by tests with validity as great as that underlying such analyses and such teaching methods."

It is certain that some measurement in these fields is used, as every time a mark is placed on a report card or a credit allowed in a high school or university someone has evaluated the outcomes of the course in question.

A reasonable position seems to be the recognition of the fact that because no satisfactory measuring device has been constructed is no reason to believe that one cannot be constructed and to attempt as rapidly as possible to build one that meets the objectives in the particular field under consideration. This is the position taken by many school systems and is in line with modern practice.

Without attempting a review of the intelligence testing movement it may be said that the earlier claims of many of the advocates of the use of tests were extravagant and unsound and that many of the attacks made upon the use of the tests were equally unreasonable and were often made by men who were not at all competent to discuss the subject.

Much good, however, has come out of the discussions in that the recognition of the correct uses and limitations of intelligence tests in the public schools has become more general and the more harmful practices are being discontinued.

### *Can Intelligence Be Measured?*

There is no general agreement among psychologists as to the meaning of the term "general intelligence," or as to how it may be measured, or even to the fact that it exists. The modern intelligence test maker ignores the divergence of opinion as to the nature of intelligence, attacks the problem from a pragmatic angle, and says that a test is good if it serves the purposes for which it is intended regardless of *a priori* considerations. The method generally used was devised by Binet and consists in presenting to the person to be tested a number of tasks of increasing difficulty involving several mental functions and the averaging of the scores made on the various parts into a single score which is assumed to be a measure of general intelligence. This method, obviously, does not uncover special abilities but deliberately ignores them in the attempt to make the average score more stable. It is desirable that this point be recognized by those who use the results of such tests.

In theory it is desirable that the tasks used to sample the ability in the mental functions to be measured should be unfamiliar to the person being tested so that his responses to new situations may be obtained. In practice it is difficult to find a sufficient number of items of this sort and material that measures the results of learning is therefore included. For example, problems in arithmetic are often found in intelligence tests and it is assumed that, all the persons being tested having had the opportunity of gaining the minimum skills necessary to solve the problems, learning has taken place in proportion to their intelligence; in other words, that by testing how well intelligence has worked in the past it may be predicted how well it will work in the future.

Now, in the main, this assumption is a sound one but its application in particular cases may result in serious error. In discussing this point Dearborn says:

"Individuals differ greatly in the organization of their experiences: Some have their information always on tap, their intellectual equipment ever prepared for prompt response to at least ordinary demands of life; their reactions are matters of seconds.

"These individuals may, however, be merely clever persons. In some instances, like smart schoolboys, they may have learned the answers without having been to the pains of solving the problems for themselves. Others may require more time to marshal their forces; but it is not simply a matter of time or speed of reaction. Their minds may not be well organized to meet the demands of everyday life, but may for this very reason be able to deploy their forces the more effectively in meeting unusual or novel situations. With due recognition of the advantages of habits well adapted to the daily tasks, a man may turn out a genius partly because he has not become a creature of habit."[1]

It should also be noted that many intelligence tests are heavily weighted with linguistic material. If Terman's definition of intelligence as "the ability to think in terms of abstract ideas" is accepted this procedure is satisfactory if, and the exception is important, the person being tested has had a reasonable opportunity to acquire the minimum command of the language necessary properly to understand what he is expected to do. If he has not had this opportunity the test, in his case, will not give satisfactory results.

### *"Intelligence Test" an Unfortunate Term*

These considerations and others cause many psychologists to question whether or not the group intelligence test accurately measures native intelligence. Insofar as their use in school administration is concerned, however, the matter is of small importance. They do accurately measure the ability of the pupil to do the work of the public schools as it is organized today, and the question of the relative effect of learning upon intelligence or of intelligence upon learning may safely be left to the psychologist for solution.

The choice of the name "intelligence test" for such measuring instruments was unfortunate. The connotation of the word intelligence is vague

[1]Dearborn, W. F., Intelligence Tests, pp. 68-69, Houghton, Mifflin Company, Boston, 1928.

and the average parent knows just enough about it to be suspicious of its use in connection with his child. The term "scholastic aptitude test" more nearly describes the tests generally used in schools and arouses much less opposition. It is to be noted in this connection that in some of the newer tests the word intelligence does not appear.

### *The Present Method of Giving Tests*

Some years ago many of the writers in the field of mental tests advocated the use of two forms of one test or the giving of two different tests for each pupil, holding the belief that the result of one test was not sufficiently accurate for decisions on the educational problems for the solution of which the test was given. Now it is undoubtedly true that the average of several tests, equally well administered, is more accurate than the results of any single test, and when the results from several tests are available such an average should be used. It is now regarded as better practice, however, to give a single test repeated at stated intervals than to give two or more tests within a few weeks. It is assumed, of course, that the person interpreting the results from such a test understands the probable error concept and regards the scores obtained as an indication that the true score of the pupil lies within certain limits rather than at any fixed point. For certain pupils, it is probable that a second test should be given, but these cases are limited in number.

There has long been a feeling among teachers that the results of intelligence tests and achievement tests did not and could not completely predict the success of a pupil in school work. These teachers believed that a pupil's emotional reaction to the learning situation set up in any particular case was an important factor in the responses obtained and that this factor should be taken into account.

This position is undoubtedly sound and has been so recognized by psychologists and educators generally. Some excellent work has been done in this field by Downey, Voelker, Terman, Hartshorne, May and others, but it seems safe to say that as yet no tests are available in this field which are suited for use in the public schools.

If attitudes, ideals, emotions and the like are to be evaluated, such evaluation must as yet be in terms of the personal opinion of the person making the study. The subjectivity of such an opinion may be reduced by using rating scales, breaking up the trait to be rated into its component parts and allowing sufficient time between the various ratings, but in the end all that is obtained is the personal opinion of the person doing the rating and this fact should be recognized.

The use of educational tests and measurements in the public schools is no longer in the experimental stage. Such instruments are recognized as indispensable in scientific school supervision and administration and as having a necessary relation to the teaching process. It seems safe to predict that within the near future only those teachers who have had a thorough and adequate training in this field will be employed in modern school systems.

As an indication of the growth of the testing movement Odell[1] estimates that between forty and fifty million standardized tests and scales were sold last year.

Tests are no longer given because it is the thing to do or because a teacher wants to know "how well my pupils are doing." Instead, the tests to be given are chosen after the need for them is realized and in the light of the particular problem to be solved. Thus a diagnostic test may be given in one situation, an achievement test in another and a prognostic test in a third; a test of low reliability may be safely used for one purpose, when in another set of circumstances its results would be worse than useless. More refined quantitative measures are used and more skill in the interpretation and use of results is required. In other words, the intelligent use of tests is becoming more common, and as a consequence the results obtained are yearly becoming more and more useful.

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## Where Schools Are Utilized After Hours for Play Activities

How the schools of New York City are utilized after hours for recreational purposes by both children and grown-ups is told in a bulletin issued by the department of recreation, Russell Sage Foundation.

In a year, the attendance at the school community centers was about five and a half million, in 569 schoolhouses in all sections of the five boroughs. The most frequent activities were club meetings, basket ball, checkers and chess, swimming, orchestra practice and folk dancing.

The whole range of free time recreation for young and old is divided into three classes: official centers, with trained staffs which help in organizing and carrying out the various projects; unofficial centers in which outside organizations make use of the school building and equipment on recurrent dates; occasional use of schools by outside organizations under permits covering a single date.

[1]Odell, C. W., Educational Measurement in High School, p. 50, Century Company, New York City, 1930.

# The Problem Teacher in the Grades —A Composite Picture

*This study reveals that she is lacking in creative ability, has little initiative, is tactless, commonplace in her professional attitude, uninterested in her pupils, a poor disciplinarian and a bungling teacher*

By GEORGE C. KYTE, Professor of Education, University of California

SINCE Littler published his study of causes of failure among teachers,[1] a number of more intensive investigations have appeared which provide us with an insight into the nature of weak teachers. During the past decade, a smaller group of complementary research studies have been published which yield information regarding the factors contributing to the success or the failure of teachers. The available recent synthesis[2] of the conclusions deduced from the isolated studies precludes the need for treating the findings in this paper.

The present study is limited to the type of elementary school teacher who is generally continued in service for various reasons and is considered the most serious problem teacher working in a school system. The fifty-three items included in the investigation of each case supply information about (1) the teacher, (2) her teaching procedure and (3) the children she teaches.

### *How the Study Was Made*

The technique used in collecting the data provided a means for selecting a competent group of supervisory officers from whom reports on individual teachers were obtained directly. All of the supervisors were students in sections of the graduate course in supervision of elementary education taught by me in the University of Michigan fall sessions of 1929 and 1930 and the summer sessions of 1930 and 1931. The 162 members of the six classes were asked to report "regarding the most serious problem teacher you have had occasion to supervise." Each case included is, therefore, the one teacher that each supervisory officer considered his most serious problem case during the years he had served in a supervisory capacity.

From the 162 cases reported, 69 elementary school teachers were finally selected for inclusion in this study, as presenting in each case an example of the type being studied. A small number were eliminated from the list because they were high school teachers. A few others were omitted because part of the information requested had not been given. Reports made by supervisors of limited experience were not included. Teachers reported by supervisors of less ability than the large majority of the class were also eliminated.

### *Analyzing the Problem Teacher*

The remaining cases chosen for study were reported by 34 superintendents of city schools, 19 elementary school principals, 13 grade supervisors and 3 supervisors of special subjects. Many of the superintendents had also served as principals. Some of the principals had been superintendents in small school systems. Almost all of the group had completed professional training which included such courses as methods of teaching in the elementary schools, psychology of elementary school subjects and city school administration. More than half of the group of 69 supervisory officers had had some normal school training and elementary school teaching experience. The teachers reported by them were employed in large as well as small cities scattered over the entire country.

When the term's work in the graduate course was nearing completion, each student was asked to select from all of the teachers he had previously supervised the one who had proved to be the most serious problem teacher. He was instructed to recall all information that he could about (1) the teacher, (2) her classwork and (3) her influence on her pupils. At the next meeting of the class each supervisory officer was given a copy of the "Howe-Kyte Diagnostic Record of Teaching"[1] and

[1]Littler, Sherman, Causes of Failure Among E'ementary School Teachers, School and Home Education, March, 1914, p. 255.

[2]Kyte, George C., How to Supervise, chap. 16, Houghton Mifflin Co., 1930.

[1]Howe-Kyte Diagnostic Record of Teaching, Houghton Mifflin Co., 1932. This latest revision contains the slight modifications made since the card was used in this investigation.

instructed in its use. He then underscored all items about which he felt certain he could appraise the teacher. Since the revision of the card used in this study had been the product of several years of research in its development and use, the recordings obtained are specific, valid and objective. The distributions shown in the tables are proof of the truth of this statement.

Table I shows how the 69 cases are distributed over a five-point scale for each of the 26 items regarding the characteristics of a teacher. The table includes each statement as it appeared on the diagnostic record card and the five scaled qualifying terms appearing after an item. Each percentage distribution has been computed from the frequency with which each qualifying term in the series of five has been underscored.

The distributions of percentages after various items listed under "personal attributes" indicate that the most serious problem teachers seem to have many of the characteristics we should expect to find in better types of teachers. It is not surprising that school officials had felt justified at the outset in recommending the appointment of many of the problem teachers. When we stop to recall that these persons were appraised for this study only after they had become recognized as serious problem teachers, we can appreciate the impression that they had made initially either in their interviews with the employing authorities or from the recommendations received about these teachers.

Seven in every eight, for instance, are considered as possessing either average general intelligence or superior intelligence. Two out of every three exhibit good health. In personal appearance, more than 85 per cent are at least satisfactorily neat and 87 per cent are at least appropriately dressed. About four out of five are either civil or gracious in manner and seven out of ten are at least considerate in sympathy. A majority are

TABLE I—PERCENTAGE DISTRIBUTION OF THE UNDERSCORED ITEMS REGARDING THE CHARACTERISTICS OF SIXTY-NINE MOST SERIOUS PROBLEM TEACHERS

| *Item Analyzed and Evaluated* | *Percentage Distribution of Scores According to Qualifying Terms Used* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | | 4 | | 3 | | 2 | | 1 | |
| Personal Attributes | | | | | | | | | | |
| General intelligence | very inferior | 1.4 | inferior | 11.6 | average | 62.3 | superior | 23.2 | very superior | 1.4 |
| Health | defective | 8.7 | delicate | 24.6 | sound | 46.4 | vigorous | 17.4 | abounding | 2.9 |
| Personal appearance: neatness | slovenly | | careless | 14.5 | satisfactory | 66.7 | particular | 14.5 | immaculate | 4.3 |
| Personal appearance: appropriateness | absurd | 1.4 | unsuitable | 11.6 | passable | 47.8 | suitable | 37.7 | distinctive | 1.4 |
| Use of voice | annoying | 11.6 | unpleasant | 36.2 | modulated | 34.8 | pleasing | 15.9 | melodious | 1.4 |
| Attitude toward life | pessimistic | 21.7 | wavering | 24.6 | passive | 31.9 | cheerful | 17.4 | optimistic | 4.3 |
| Manner | rude | 5.8 | ungracious | 20.3 | civil | 55.1 | gracious | 18.8 | charming | |
| Poise | disconcerted | 2.9 | unstable | 49.3 | balanced | 34.8 | self-possessed | 8.7 | confident | 4.3 |
| Tact | boorish | 8.7 | blunt | 44.9 | frank | 27.5 | diplomatic | 17.4 | cultured | 1.4 |
| Sympathy | hostile | 7.2 | cold | 23.2 | moderate | 46.4 | considerate | 18.8 | hearty | 4.3 |
| Emotional stability | weak | 17.4 | questionable | 34.8 | passable | 31.9 | unquestionable | 13. | strong | 2.9 |
| Leadership | lacking | 44.9 | unsteady | 37.7 | firm | 11.6 | persuasive | 5.8 | powerful | |
| Initiative | poor | 26.1 | unsatisfactory | 33.3 | fair | 26.1 | good | 11.6 | excellent | 2.9 |
| Creative ability | lacking | 26.1 | unresourceful | 29. | moderate | 34.8 | resourceful | 8.7 | marked | 1.4 |
| Professional Attributes | | | | | | | | | | |
| Professional attitude | unethical | 24.6 | unprogressive | 29. | commonplace | 40.6 | progressive | 5.8 | ethical | |
| Regularity of attendance and punctuality | negligent | 2.9 | irregular | 18.8 | ordinary | 33.3 | dependable | 31.9 | unfailing | 13. |
| Accuracy and promptness in preparing report | poor | 20.3 | questionable | 37.7 | satisfactory | 26.1 | exceptional | 11.6 | perfect | 4.3 |
| General sense of responsibility | irresponsible | 7.2 | careless | 46.4 | trustworthy | 33.3 | careful | 7.2 | unfailing | 5.8 |
| Cooperation | antagonistic | 15.9 | indifferent | 43.5 | acquiescent | 30.4 | helpful | 8.7 | constructive | 1.4 |
| Loyalty | deceptive | 24.6 | indifferent | 34.8 | honest | 37.7 | considerable | | whole-hearted | 2.9 |
| Social Attributes | | | | | | | | | | |
| Attitude toward pupils | hostile | 8.7 | uninterested | 21.7 | fair | 42. | interested | 20.3 | sympathetic | 7.2 |
| Attitude toward other teachers | antagonistic | 7.2 | disagreeable | 26.1 | agreeable | 46.4 | friendly | 20.3 | appealing | |
| Attitude toward people in general | unsocial | 5.8 | ill disposed | 7.2 | passive | 55.1 | well disposed | 24.6 | social | 7.2 |
| Influence upon Pupils | | | | | | | | | | |
| Influence on control of class | scant | 21.7 | ineffective | 52.2 | successful | 20.3 | effective | 5.8 | purposeful | |
| Influence on pupils' character | harmful | 8.7 | negative | 59.4 | encouraging | 23.2 | positive | 8.7 | inspiring | |
| Influence on pupils' habits | poor | 34.8 | unskillful | 46.4 | moderate | 17.4 | skillful | 1.4 | excellent | |

TABLE II—PERCENTAGE DISTRIBUTION OF THE UNDERSCORED ITEMS DESCRIPTIVE OF THE TEACHING PROCEDURES OF THE SIXTY-NINE MOST SERIOUS PROBLEM TEACHERS

| *Item Analyzed and Evaluated* | *Percentage Distribution of Scores According to Qualifying Terms Used* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | | 4 | | 3 | | 2 | | 1 | |
| The Teaching Process | | | | | | | | | | |
| Determining and maintaining sound educational purpose | vacillating | 21.7 | intermittent | 49.3 | matter of fact | 23.2 | certain | 2.9 | growing | 2.9 |
| Meeting or creating in the pupil an actual need and purpose for undertaking activity | resisting | 4.3 | restraining | 43.5 | moderate | 49.3 | considerable | 2.9 | marked | |
| Guiding the pupil's method of attack | lacking | 24.6 | hazy | 33.3 | mediocre | 31.9 | helpful | 10.1 | superlative | |
| Helping the pupil to connect and convert past experiences into the development of new subject matter | irrelevant | 11.6 | unrelated | 52.2 | commonplace | 29. | related | 5.8 | integrated | 1.4 |
| Assisting the pupil to collect and organize new materials into working form | irrelevant | 11.6 | illogical | 34.8 | ordinary | 46.4 | logical | 7.2 | remarkable | |
| Inspiring the pupil to construct or create on the basis of this material a final plan of work | futile | 20.3 | bungling | 49.3 | practicable | 26.1 | skillful | 4.3 | creative | |
| Aiding the pupil to test and use this plan | destructive | 11.6 | dogmatic | 56.5 | reasonable | 30.4 | discriminating | | constructive | 1.4 |
| Specific Skills | | | | | | | | | | |
| Attention to needs of individual | no | 24.6 | infrequent | 29. | occasional | 31.9 | frequent | 13. | continual | 1.4 |
| Choice of instructional materials | trivial | 10.1 | questionable | 26.1 | mediocre | 46.4 | helpful | 17.4 | ingenious | |
| Use of instructional materials | negligible | 11.6 | doubtful | 37.7 | ordinary | 40.6 | skillful | 10.1 | extraordinary | |
| Skill in questioning methods | no | 10.1 | little | 47.8 | fair | 39.1 | considerable | 2.9 | expert | |
| Selection of method | absurd | 10.1 | uncertain | 68.1 | acceptable | 15.9 | relevant | 5.8 | superlative | |
| Planning the work | poor | 18.8 | inadequate | 37.7 | passable | 36.2 | adequate | 5.8 | thorough | 1.4 |
| Use of pupils' time | wasteful | 21.7 | doubtful | 49.3 | fair | 29. | efficient | | expert | |
| Classroom Management | | | | | | | | | | |
| Routine handling of pupils | incompetent | 18.8 | inefficient | 50.7 | orderly | 26.1 | efficient | 4.3 | expert | |
| Routine handling of materials | incapable | 7.2 | ineffective | 58. | systematic | 34.8 | effective | | expert | |
| Routine control of physical environment | incompetent | 10.1 | careless | 21.7 | fair | 58. | careful | 10.1 | competent | |
| Appearance of room | repellent | 7.2 | disorderly | 34.8 | orderly | 47.8 | well-arranged | 8.7 | attractive | 1.4 |

passable or better in such personal attributes as use of the voice and attitude toward life.

The personal attributes in which the majority of the group fall below the average score are primarily the items that are best appraised only after the teacher has been observed as an employed classroom worker. The poise of this type of teacher is markedly unstable, her tact is either blunt or boorish and her emotional stability is questionable if not weak. Approximately three out of five are either unsatisfactory or poor in initiative. Over 55 per cent are either unresourceful or lacking in creative ability. In the important matter of leadership, most of the serious problem teachers are very weak. Forty-five per cent are lacking in this characteristic and an additional 38 per cent are unsteady.

In only one of the six "professional attributes" listed, more than half of the group of problem teachers are at least satisfactory and in the one item they tend toward mediocrity. This attribute is described by the phrase, "regularity of attendance and punctuality."

A significantly large group are commonplace in their professional attitude but a clear majority are either unprogressive or unethical. These problem teachers are markedly careless in their general sense of responsibility, some of them being irresponsible. It is to be expected that they are also questionable and often poor in their accuracy and promptness in preparing reports. Furthermore, in both cooperation and loyalty, almost 60 per cent are appraised as falling below a passable standard.

From the data presented with respect to the personal attributes of the serious problem teachers, evaluations of their "social attributes" can almost be inferred. The large majority exhibit acceptable attitudes toward other human beings,

TABLE III—PERCENTAGE DISTRIBUTION OF THE UNDERSCORED ITEMS REGARDING THE EFFECTS OF THE MOST SERIOUS PROBLEM TEACHERS ON THE PUPILS IN THEIR CLASSES

| *Item Analyzed and Evaluated* | *Percentage Distribution of Scores According to Qualifying Terms Used* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | | 4 | | 3 | | 2 | | 1 | |
| Attitudes in Social Relations | | | | | | | | | | |
| Attitude toward the school | disloyal | 7.2 | indifferent | 50.7 | loyal | 34.8 | helpful | 7.2 | enthusiastic | |
| Attitude toward the teacher | hostile | 10.1 | indifferent | 59.4 | obedient | 21.7 | responsive | 7.2 | cooperative | 1.4 |
| Attitude toward classmates | antagonistic | 7.2 | indifferent | 31.9 | agreeable | 56.5 | helpful | 2.9 | whole-hearted | 1.4 |
| Attitude toward life | pessimistic | 4.3 | wavering | 33.3 | passive | 42. | cheerful | 17.4 | optimistic | 2.9 |
| Behavior Toward Work | | | | | | | | | | |
| Effort | lazy | 10.1 | listless | 60.9 | consistent | 24.6 | energetic | 4.3 | persistent | |
| Responsibility | irresponsible | 13. | careless | 63.8 | trustworthy | 18.8 | conscientious | 4.3 | unfailing | |
| Achievement | poor | 11.6 | failing | 50.7 | average | 37.7 | superior | | excellent | |
| Initiative | poor | 14.5 | unsatisfactory | 49.3 | fair | 30.4 | good | 5.8 | excellent | |
| Care of the room | destructive | 13. | indifferent | 53.6 | obedient | 23.2 | helpful | 10.1 | constructive | |

the mode of the distribution indicating a mediocre quality. There are many, however, who have less desirable attitudes toward others. Over 30 per cent of the problem teachers are uninterested in or hostile toward their pupils. One-third of the entire group are either disagreeable or antagonistic toward other teachers; 13 per cent are ill-disposed or unsocial in their attitude.

Undesirable characteristics are dominant with respect to these teachers' influence upon their pupils. Three out of four teachers are ineffective or possess scant influence in the control of their classes. Over 59 per cent exert a negative influence on the pupils' character and almost 9 per cent more exercise a distinctly harmful influence. Eighty per cent of the group are unskillful in their influence on the pupils' habits.

Table II indicates in considerable detail the nature of the teaching performed by the most serious problem teachers. From the first seven items can be constructed a mental picture of the complete teaching act. The next seven items offer the means for describing the extent to which the teachers exhibit important specific skills related to their teaching procedures. The last four items present the supervisors' appraisals of the routine phases of classroom management.

The distributions of percentages among the qualifying terms descriptive of the various steps of the "teaching process" indicate markedly unsatisfactory teaching. In only two of the seven phases of the teaching process are more than half of the teachers doing passable work. In meeting or creating in the pupil an actual need and purpose for undertaking an activity, the typical teacher of this group performs passably. On the other hand, almost 48 per cent restrain or resist pupils' needs and purposes. The assistance given by a majority of the teachers to their pupils in collecting and

TABLE IV—CHARACTERISTICS OF THE TYPICAL MOST SERIOUS PROBLEM TEACHER

| *Item* | *Quality* | *Equivalent in Numerical Score*[1] |
|---|---|---|
| Personal Attributes | | |
| General intelligence | average | 3 |
| Health | sound | 3 |
| Personal appearance: neatness | satisfactory | 3 |
| Personal appearance: appropriateness | passable | 3 |
| Use of voice | modulated | 3 |
| Attitude toward life | passive | 3 |
| Manner | civil | 3 |
| Poise | unstable | 4 |
| Tact | blunt | 4 |
| Sympathy | moderate | 3 |
| Emotional stability | questionable | 4 |
| Leadership | unsteady | 4 |
| Initiative | unsatisfactory | 4 |
| Creative ability | unresourceful | 4 |
| Professional Attributes | | |
| Professional attitude | unprogressive | 4 |
| Regularity of attendance and punctuality | ordinary | 3 |
| Accuracy and promptness in preparing report | questionable | 4 |
| General sense of responsibility | careless | 4 |
| Cooperation | indifferent | 4 |
| Loyalty | indifferent | 4 |
| Social Attributes | | |
| Attitude toward pupils | fair | 3 |
| Attitude toward other teachers | agreeable | 3 |
| Attitude toward people in general | passive | 3 |
| Influence Upon Pupils | | |
| Influence on control of class | ineffective | 4 |
| Influence on pupils' character | negative | 4 |
| Influence on pupils' habits | unskillful | 4 |

[1]Numerical score is on a five-point scale with 1 the highest value and 5 the lowest value.

organizing new materials into working form is distinctly ordinary. Three out of every nine, however, give illogical assistance, and another one out of the nine gives irrelevant aid.

In the other five items regarding the teaching act, the work of most of the teachers is unsatisfactory. Guidance of the pupils' method of attack is lacking in one out of four cases and hazy in one out of three cases. A partial reason for this weak performance is to be seen in the doubtful manner in which 71 per cent of the teachers attempt to determine and maintain sound educational purpose. "Intermittent" describes this phase of teaching done by about one-half the entire group and "vacillating" describes that done by another fifth of the cases. This same weakness has some bearing on the unsatisfactory help given to the pupils by almost 64 per cent of the teachers in attempting to utilize the children's past experiences.

TABLE V—THE TEACHING PROCEDURE OF THE TYPICAL MOST SERIOUS PROBLEM TEACHER

| *Item* | *Quality* | *Equivalent in Numerical Score*[1] |
|---|---|---|
| The Teaching Process | | |
| Determining and maintaining of teacher's educational purpose | intermittent | 4 |
| Meeting or creating in the pupil an actual need and purpose for undertaking activity | moderate | 3 |
| Guiding the pupil's method of attack | hazy | 4 |
| Helping the pupil to connect and convert past experiences into the development of new subject matter | unrelated | 4 |
| Assisting the pupil to collect and organize new materials into working form | ordinary | 3 |
| Inspiring the pupil to construct or create on the basis of this material a final plan of work | bungling | 4 |
| Aiding the pupil to test and use this plan | dogmatic | 4 |
| Specific Skills | | |
| Attention to needs of individual | infrequent | 4 |
| Choice of instructional materials | mediocre | 3 |
| Use of instructional materials | ordinary | 3 |
| Skill in questioning methods | little | 4 |
| Selection of method | uncertain | 4 |
| Planning the work | inadequate | 4 |
| Use of pupils' time | doubtful | 4 |
| Classroom Management | | |
| Routine handling of pupils | inefficient | 4 |
| Routine handling of materials | ineffective | 4 |
| Routine control of physical environment | fair | 3 |
| Appearance of room | orderly | 3 |

[1]Numerical score is on a five-point scale with 1 the highest value and 5 the lowest value.

TABLE VI—THE TYPICAL MOST SERIOUS PROBLEM TEACHER'S EFFECT ON HER PUPILS

| *Item* | *Quality* | *Equivalent in Numerical Score*[1] |
|---|---|---|
| Attitudes in Social Relations | | |
| Attitude toward the school | indifferent | 4 |
| Attitude toward the teacher | indifferent | 4 |
| Attitude toward classmates | agreeable | 3 |
| Attitude toward life | passive | 3 |
| Behavior Toward Work | | |
| Effort | listless | 4 |
| Responsibility | careless | 4 |
| Achievement | failing | 4 |
| Initiative | unsatisfactory | 4 |
| Care of the room | indifferent | 4 |

[1]Numerical score is on a five-point scale with 1 the highest value and 5 the lowest value.

With such a preponderance of questionable skill evident in the first five steps of the teaching process, the distributions of percentage regarding quality of performance in completing the teaching act are to be expected. In carrying the learning of the children to the point where they can utilize their experiences, one-half of the group of teachers are bungling and another fifth of the group work futilely. In their efforts to avoid failure as the final outcome of their unsatisfactory teaching, they become either dogmatic or destructive while endeavoring to aid the pupils in making use of experiences.

The nature of the "specific skills" of the serious problem teachers corresponds to the characteristics of their teaching processes. Inadequate and even poor planning of their work is evident in the teaching of four of every seven teachers. Sixty-eight per cent are uncertain in their selection of method and another 10 per cent make absurd selections.

Since supervisors, administrators and other teachers have much to do with the nature of the instructional materials available, the problem teachers are prevented from considerable misuse of the materials. In fact, a large majority of them make their best showing in their choice from instructional materials at hand. Seventeen per cent are rated as helpful and 46 per cent as making a mediocre selection. On the other hand, 26 per cent make questionable selections of materials and another 10 per cent make trivial choices. Over 49 per cent of the teachers fail to make satisfactory use of the instructional materials, the use of mate-

rials by almost 12 per cent of the teachers being described as "negligible."

Slightly more than 10 per cent of the group are considered as having no skill in questioning and almost 48 per cent more exhibit little skill in it. The rest of the group have a fair amount of skill. Twenty-nine per cent give infrequent attention to the needs of individual pupils and nearly 25 per cent give no attention to this important item. Over 14 per cent, however, give frequent or continual attention to individual needs and the remaining 32 per cent give occasional attention.

The supervisors appraised the teachers' use of class time as being markedly unsatisfactory. Of each ten serious problem teachers, five make doubtful use of their pupils' time and two use it wastefully. The remaining three make only fair use of children's school time.

In matters of classroom management, most of the 69 teachers display incompetency. Over 50 per cent are inefficient in the routine handling of pupils and almost 19 per cent more are incompetent. In the routine handling of instructional materials, 58 per cent are ineffective and 7 per cent more are incapable. Only 35 per cent reach mediocrity in this respect.

When it is recalled that these teachers have only partial control over the appearance of their rooms, the distributions of the appraisals on this point assume added significance. Disorderliness is characteristic of the rooms of 35 per cent of the group. Another 7 per cent are so poor in their housekeeping that their classrooms are repellent.

In spite of the fact that almost all of the teachers are in city schools in parts of the country where automatic controls exist for most of the physical features of the plants, only 10 per cent of the group are rated as careful in their routine control of the room conditions. A like percentage of the teachers are incompetent and an additional 22 per cent are careless.

### *How the Pupils Are Affected*

Table III discloses the effects of the most serious problem teachers on the pupils in their classrooms. In two types of "attitudes in social relations," the 69 teachers seem to have had only slight influence. The percentage distributions regarding the pupils' attitude toward life and their attitude toward classmates approximate normal curves. "Wavering" and "pessimistic" in the one case and "indifferent" and "antagonistic" in the other are too much in evidence. On the other hand, the more desirable qualifying terms applying to these items are listed too infrequently.

The real seriousness of the influence of the 69 teachers on the attitudes of their pupils is prominent in the children's reactions toward their school and, worst of all, toward their teacher. Indifferent attitude toward school characterizes the reactions of the pupils under the care of 51 per cent of the teachers. The children in the classrooms of another 7 per cent are disloyal toward their school. The pupils of 6 out of every 10 problem teachers are indifferent toward these instructors; the pupils of another one of the 10 teachers are hostile to her.

### *"Listless," "Lazy," Describe Pupils*

In "behavior toward school work," the pupils of the 69 teachers are far from satisfactory. Children's effort in 61 per cent of the classrooms is "listless" and in 10 per cent more is "lazy." In 24 per cent of the classrooms, children display trustworthiness or conscientiousness in their responsibility toward their work. Thirteen per cent of the teachers have classes which are described as being irresponsible. It is not surprising, therefore, to note that the pupils in the classes of more than 49 per cent of the teachers exhibit unsatisfactory initiative in classwork and of approximately an additional 15 per cent of the teachers show poor initiative.

The pupils' care of their classrooms is in keeping with the three types of undesirable behavior just described. In the rooms of nearly 54 per cent of the teachers, pupils' indifference towards care of their room is in evidence. In the classrooms of another 13 per cent of the teachers, a destructive attitude abounds.

From the data presented thus far, we can expect to note the next findings included. The general achievement of the pupils in the classes of nearly 51 per cent of the serious problem teachers is termed failing and of the children under almost 12 per cent more of the teachers is labeled poor. It seems reasonable to conclude from these data regarding the effects on children of the 69 teachers that a relatively small number are sufficiently satisfactory to be retained as teachers and then only if marked improvement occurs.

From the data presented in the first three tables, it is possible to construct a picture of the typical most serious problem teacher. The typical case is presented in Tables IV, V and VI. The qualifying term and its numerical equivalent, on a five-point scale, occurring after each item in these three tables represent the median score. When we find a person who is quite similar to this typical problem teacher should we not hesitate to place her over children until such time as we can discover other evidence which sufficiently contradicts the conclusion we draw from such a case?[1]

[1]Read at the meeting of the American Educational Research Association, Washington, D. C., February 25, 1932.

# Encouraging the School Child to Buy Healthful Foods

*Many factors enter into the business of influencing the pupil to eat what is good for him—attractive counter display, colorful arrangement, quick and courteous service and reasonable prices*

By HOWARD L. BRIGGS, Director of Vocational Education, and CONSTANCE C. HART, Supervisor of Lunchrooms, Board of Education, Cleveland

STORE windows, magazines and catalogues continually demonstrate the fact that most of us make our purchases upon a visual basis. The selling of food is no exception, and a cafeteria system wherein all food is exhibited prior to purchasing requires the utmost care in the selection and arrangement of that food upon the counter. Not only is the food itself an important item, but the counter is the foundation upon which the food display is built.

The materials selected for counter fabrication should of necessity form a background for any food displayed. If enameled metal, tiles or vitreous materials are used, the color scheme must be sufficiently neutral to make it possible for the food to be the center of the entire decorative scheme, and the colors used must allow for a changing color scheme since the purchaser soon loses interest if he is always presented with the same old picture. It is our experience in the Cleveland cafeteria system that a soft silver finish forms an excellent background for the counter proper and for the

*A pleasing counter display is an important factor in aiding pupils to choose the right foods.*

trays. What is more unappetizing than a discolored and chipped enamel tray partially covered by food?

The front of the counter must also be considered, since it forms an integral part of the entire picture. The wall and woodwork surrounding the counter add to the general appearance and enter into the subconscious concepts formed by the purchaser of the quality of service he is to receive.

The lighting of the counter is also important. The lighting system should not be in evidence, since a glare is undesirable, but it should be so arranged that the food itself is outstanding and illuminated to the best advantage. Some recent installations are so constructed that the fixtures are concealed in the ceiling with the light focused upon the food. This system makes any counter top stand out in the soft flood of an evenly distributed illumination.

The width of the counter must be sufficient to provide room for an ample display of food without overcrowding. Foods that should be served hot must be kept hot. Cold foods should be chilled and ample space should be allowed for this purpose so that the effect of order and system is prevalent.

Display shelves of sufficient width and proper spacing should be available so that there is variety in the elevations of the food displayed as well as increased visibility and provision for rapid service. It is advisable to have additional shelving or racks both behind and under the counter to ensure easily accessible spaces for additional supplies of food. All visible shelves and racks should be arranged to make a pleasing display of the products on them. At the same time due consideration must be given to the speed with which food may be transferred to the racks from the counter. Any foods placed on the counter or on shelves behind the counter should be as near as possible to that section of the counter to which they must be transferred as replacements. This means that there should not be excessive space between the counter and the shelves or racks at the rear while at the same time there must be sufficient space for trucking, for delivery and for employees to pass to and fro without confusion.

### *Foods Must Have the Right Temperature*

Excess storage space should be available for chilled and hot foods. Many modern installations have thermostatically controlled heat and refrigeration units so that the food may be maintained at constant temperatures and so enclosed that even the moisture content is preserved. Nothing is more unsatisfactory than food that has been prepared so long before serving that it has become dried out through a long period of high heat and exposure to the air or food that has been allowed to become cold.

The careless serving of food can result in a most unappetizing plate. The use of sanitary scoops of proper size and filled to the correct point will make a much neater display than food that is carelessly dished with any old implement that is at hand. A variety of service implements are today available. The special fork for the service of meats and baked potatoes is so made that the pressing of a lever releases the food from the inner fork without its being touched by the human hand. This also speeds up service.

### *How to Make the Counters Attractive*

The size of the pans on the steam counter is an important factor. Are they in proportion to the quantity of food to be served from them? If they are too large, the food may stand too long on the counter. A fresh tray frequently brought in is more appetizing and likely to be in a better state of preservation. Pans of fresh food should be interchangeable in size with those upon the counter so that it is not necessary to scrape food from one pan to another in a disorderly heap, or to place the pan upon the top of the counter instead of in the space provided for it. Sectional pans are sometimes desirable for displaying smaller quantities of several foods at one time.

Counters may be decorated not only by the food but by the addition of well selected bouquets of flowers or carefully arranged fruit displays. Counters are often overdecorated, however. Crêpe paper is well named in many instances when it is used to decorate a food display.

Not only is the counter important, but the workers who serve the food must be carefully selected, supervised and trained, so that the service is rapid, courteous and efficient. Uniforms must be spotlessly clean, hands and nails must be manicured and the personality of the employees must be such that the entire service is pleasing to the purchaser. Many a sour face has spoiled an appetite. In an actual experiment conducted in the Cleveland lunchrooms, it was noted that where two counters were operated, the one conducted by a particular employee always had larger receipts than the other counter. Upon reversing the positions of the employees it was found that the patronage also transferred its business to the counter where the particularly obliging employee served. This experiment, supplemented by actual figures, was a splendid example to the employees in this lunchroom, and resulted in a definite change in attitude. A large hotel system has for its slogan, "The customer is always right." Of course we know that this is not true, but at the same time the cus-

tomer likes to feel that it is the desire of the one waiting upon him to please his particular needs and desires.

Women must be trained to replace foods as fast as they are sold. The woman at the counter must be taught to transfer food without dripping liquids from one service on to the other, on to the counter, or even on to the edge of the plate upon which the particular service is placed. She must be taught her job is a responsible one and that the customer may be easily lost by some carelessness on her own or some other employee's account. She must be taught that if the customer complains she must give the complaint courteous consideration and be so informed that she may state the facts in a co-operative and intelligent manner.

A code covering the conduct of counter employees may be formulated by any lunchroom

*Cafeteria service is efficient only when the hidden part of the counter where replacements are kept is well stocked with supplies conveniently arranged. Rapid service is thus assured for hungry pupils.*

to keep the foods at the proper temperatures, to maintain uniformity in the size of services and to be ready to make suggestions to the customer concerning food combinations, for, after all, she is a salesman and must keep her counter display attractively arranged. She must refrain from sampling food and from handling it unnecessarily. She must be ready to serve when it is time to serve and she must have all foods and utensils available. She must be trained to be rapid and accurate in her movements. If there is an accident and food is spilled, she should be alert and immediately call for the service of a porter. She must consider that system and is a most desirable document to submit to new employees when they are hired, since it provides a guide to their conduct behind the counter. Not only is such a code of conduct desirable, but a trade analysis of duties instructs them relative to their responsibilities, what they are to do and where they are to be. They must know the particular part of the counter they are responsible for.

A most confused situation is that which happened recently with the opening of a new lunchroom. The manager suddenly became ill, and none of the employees had been given definite assign-

ments relative to their individual duties behind the counter. As a result, during the rush period a large number of employees were all trying to do the same thing and many stations at the counter were absolutely bare of the food that should have been available.

School lunchrooms are educational in objective. Many children in our public schools come from homes where the social amenities pertaining to the service and eating of food are neglected. It is, therefore, desirable that the school cafeteria establish a good example. Americanization is a duty placed upon the schools. Correct habits, discriminations and cleanliness in the preparation, serving and eating of food may be carried on in part through the medium of the object lesson as found in the daily practices of the noon lunch.

### *Immaculate Cleanliness Is Essential*

Cleanliness may be expressed in a variety of ways. Not only must the counter be kept clean, but the glass shelves should be polished, sherbet glasses should sparkle and silver should shine. Metal containers should be scoured, and above all else, plates should be constantly inspected for absolute cleanliness. Any residue from the hard water precipitate remaining upon the dish after it passes through the dishwasher gives an erroneous impression to the customer.

Milk bottles should be wiped and kept chilled both to maintain low bacteria count and to make the service attractive. The little details count in the long run.

Again the neatness with which the food is arranged upon the counter counts very definitely. Dessert displays should be arranged in even rows. The sequence of counter stations offering hot foods, salads and desserts makes a difference in the items the consumer will purchase. For this reason hot food should come first, since a balanced food ration is the objective in school lunchroom service rather than volume of sales.

Meats and vegetables should be cut in evenly sized pieces. This is not only desirable for the sake of appearance, but as a cost control device, to make sure that even quantities are offered at given prices and that the quantity of meat prepared will cut up into the predetermined number of services. Some commercial cafeterias maintain over and under scales. Every service is weighed and overs and unders are trimmed and used for other purposes.

The cutting of meat is an exact science. A definite knowledge of the grain of different cuts is necessary. To ensure tenderness some cuts of corned beef must be carved from four entirely different angles. A special approach should be used in setting up a roast ham for cutting. Many of the meat packers publish excellent hand books on carving. Not only will care in carving result in a more palatable service, since meat is cut so that it will be tender, but it is more attractive if it is cut correctly with due consideration for the run of the grain.

The preparation of the meat prior to cooking will have a definite influence on the ease with which it may be carved after it has been prepared. To illustrate: Ground cloves placed on ham before the brown sugar is used, will make it much easier to slice. Whole cloves tend to tear the fat.

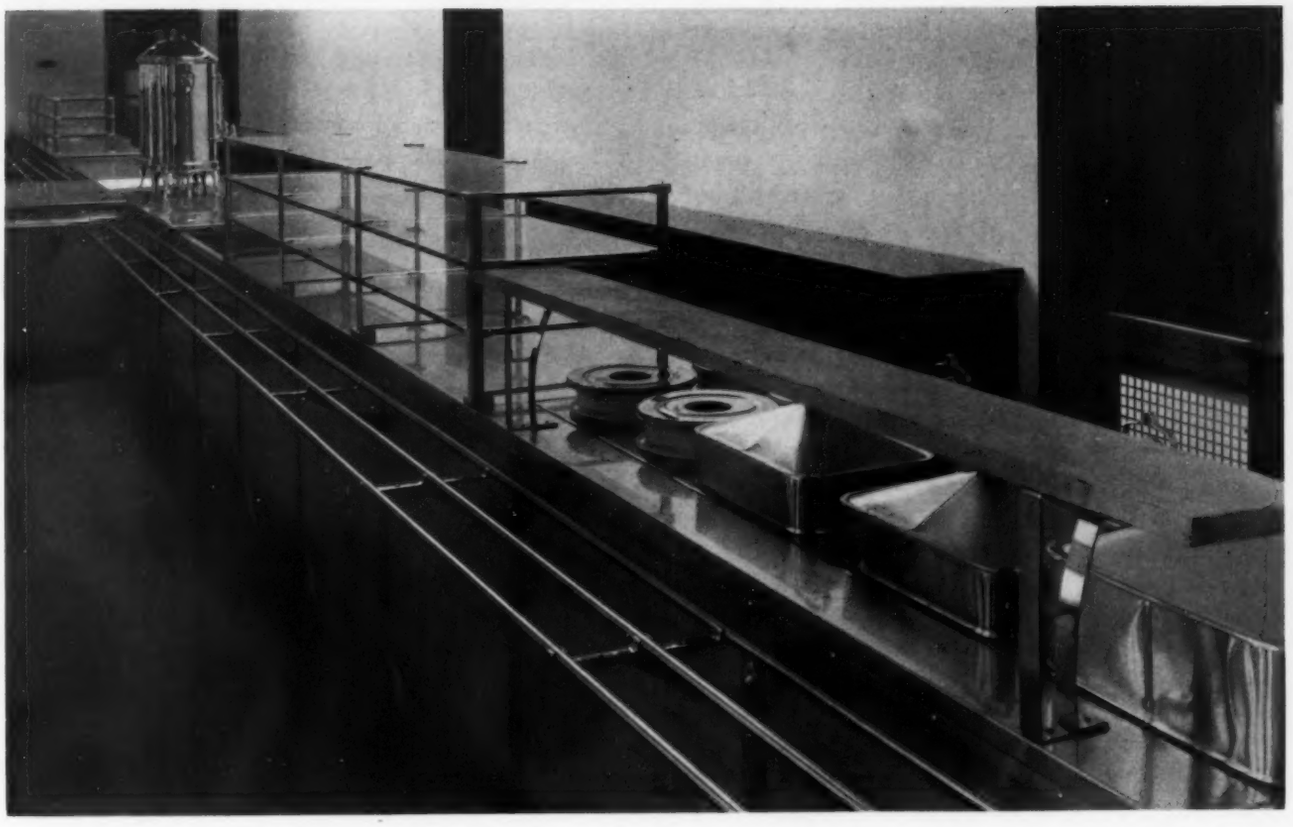
In placing meat in pans a small amount of juice or gravy should be kept in the bottom of the pan so that the meat may remain moist. Too large a pan should be avoided.

Meats may be garnished attractively by the use of parsley, green and red peppers, little new onions, chives, capers, curls of crisp bacon, apple rings, pineapple, cole slaw, olives, carrots, pickles, pimientos, radishes, sliced tomatoes, points of toast, sauces and yolks of eggs. In fact, considerable economy may be effected in some service by combining, for example, baked apple rings with roast pork. The total quantity on the plate is large, but one item is less expensive than the other and at the same time a service of higher dietetic value is offered. Too much pork may not be desirable, but it offers variety to the menu, and if some other food is substituted in part, variety may be maintained without there being served too much food that cannot be as highly recommended as some other.

Trimmings can always be utilized to the maximum advantage. Cutlets, chili, chop suey and even old-fashioned hash, if they are well prepared and attractively served, are desirable parts of the menu. By the addition of tasty fillings chopped meats may also be used to advantage for sandwiches.

### *"Selling" the Vegetable Plate*

Vegetable plates can be made most attractive. Variety and contrast should be planned ahead. A hit-and-miss piling up of vegetables never appeals to the eye or appetite. As an illustration of a well balanced and attractive vegetable plate, the following is offered: Parsleyed potato, buttered new carrots either julienne or circles and an individual service of spinach with a quarter slice of egg on top. Many cafeteria operators complain that vegetable plates require too great a variety of vegetables and take too much time. To serve vegetable plates economically it has been found that a large pan can be arranged with all of the foods in definite rows and in the form of individual



*This counter is excellently arranged for quick, convenient service. Note the tray rail, the shelf over the steam table for rapid service, the attractive shelving for dessert display, the sanitary metal counter and the compactness of the double counter service.*

services so that the server, starting at the left of the pan, transfers the foods to the plate, removing a complete row from the pan proper to the plate. For instance, the arrangement could be a row of parsleyed potatoes, a row of small scoops of spinach with a hard cooked egg already on the top, to be removed from the pan with a flat pancake turner.

Vegetables should be cooked to hold color; they must not be overcooked. Fresh cabbage maintains its pale green color if cooked for a short time. It will not only be more palatable, but more healthful if the cooking period is limited to the right length of time. Asparagus can be prepared to better advantage by separating the tough ends from the tender tips and cooking each for different lengths of time. This makes it possible to preserve the fresh color, the contour and the texture of the tips while at the same time the tougher parts of the asparagus are cooked thoroughly. In placing the asparagus on trays, the larger portion should be placed at the bottom with the tender tips on the top for decorative effect. This at the same time makes it possible to give every patron a fair distribution of base and top.

The appearance of vegetables can be changed if they are cut into cubes, circles, julienne, whole or mixed. A variety of other suggestions will also present themselves. It is possible to decorate the top of a vegetable pan by cutting out combinations of different colored vegetables in the form of rosettes, daisies and other suggestions for special occasions. The labor involved is too costly to make it a regular practice, but it will offer suggestions for enhancing the appearance of the vegetable counter. It must be remembered that the public school cafeteria counter has the same patrons day after day to a larger extent than the commercial counter. Variations in the menus and in the appearance of the counter are more essential than in any commercial cafeteria. Again, because of the limited funds of the customer, the variety that may be offered is not as large as might be desired. It, therefore, becomes even more important that the foods and decorations be presented in different forms from day to day.

Vegetables can sometimes be made more attractive by the use of divided pans so that larger units of color may be placed upon the counter. A typical case would be a pan of fresh green peas in half of the tray and julienne carrots in the other half. This makes a more pleasing color diversion than a mixture of the two colors in one pan. Economies can be effected this way by serving a larger ratio of carrots, since peas can be poured over the carrots in smaller quantities than if they were mixed. At the same time it becomes possible to buy fresh green peas early in the season, thus

giving more variety to the menu. Peas may be creamed and served with sauce to advantage in the early spring when fresh peas are too expensive to serve in quantities. They may sometimes be used as a sauce for new potatoes or with the cheaper cuts of meats and hashes. With the addition of a few mushrooms they will offer a variation that may sometimes be used over a macaroni loaf, noodle loaf or ground meat.

Vegetables are more palatable if they are served immediately after they have been cooked. For this reason, it is desirable when possible to have the cooking period completed at different times during the luncheon recess, so they may be brought immediately to the counter for display and sale. At certain seasons of the year when vegetables are plentiful, attractive vegetable hash or stews may be prepared.

Taste of foods is an important consideration if sales are to be maintained. The temptation is great to add a little seasoning to hot water and serve it as soup, or to add a little thickening and call it gravy. For food value and flavor, however, it is essential that real vegetables and meat stocks be used as a basis for both soups and gravy. The preparation of meats and vegetables in the lunchroom should make available an adequate supply of the essential ingredients of a well flavored base. A steam stock kettle may be constantly kept going for the utilization of odds and ends of trimmings of fresh meat. The water in which vegetables have been cooked and the drippings of roasts may be preserved for a stock base.

*Hints on Soup Preparation and Service*

The color of soups and gravy is another element in the sales value. Anemic soups and gravies are far from appetizing. The vegetable soup should have plenty of vegetables in it, and all soups should be free of a surplus of floating grease. The variety and the size of the vegetables in the soup are also elements in the sales factor.

Curdled soup is a trade eliminator. Vegetable purée and white sauce should not be combined until they are ready to be placed on the steam counter. This will prevent curdling. White sauce should be smooth and free from lumps. Croutons, crackers and whole wheat bread sandwiches are most palatable when served with soup and they offer nourishing food at a minimum cost for the child who has not much to spend. An infinite variety of soups can be prepared. In this connection, a few adventures in the realm of the "new" are very much worth while. There is great danger in adhering to a few standard recipes. Constant variety in the soups offered is a great incentive to sales.

Variety can be constantly maintained through the utilization of seasonal foods. For pot roast or swiss steak, sautéed spring onions with a little butter with minced parsley will make the meat attractive. Early strawberries may be expensive. Half a strawberry on top of the dessert will at least suggest a change and will not be unduly costly. Strawberries in the frosting of a cake or as a thinly sliced layer over cream pies also add variety.

*Encouraging Fruit and Dessert Sales*

Any fruits sold over the counter should be clean. Some fruits are more appetizing if they are chilled. The arrangement is again important. It is frequently desirable to place the fruit in individual servers, either in bowls or plates. Stewed fruit is most healthful and sometimes it is desirable to make the price of it so low that its sale becomes inevitable. When it is found desirable to increase the sale of some item such as fruit, it is frequently a good idea to place this particular item at several points on the counter so that the buyer is more than once reminded of its availability. It should be attractively prepared. If the skins are allowed on fresh rhubarb, the result in color will be pleasing. For counter decoration it should be served in glass sherbets. Grape juice poured over pears may give color to the counter, and a pale green tint may be given to pineapple by the addition of pure fruit coloring. In food the color element is most effective if it is not overdone.

Concerning pastries and cakes, considerable controversy arises as to whether they should or should not be served to children. They should form a limited part of the adolescent's menu. Custard, prune or raisin pies having but one crust and containing valuable milk, eggs and fruit are examples of the best kind of pies to offer. As a rule, pies are high in energy giving food but are slow to digest because of the combination of the fat and the flour, and may cause a heavy strain on the digestive apparatus. Children, especially high school children, are fond of pie, and if they are not allowed to buy it in school they will buy it at other places where the ingredients are of doubtful origin.

If pies are served, they should be of the highest quality. The crust should be flaky and the fillings not too thick. The fillings should be smooth and cooked in such a way that the starch does not have a raw taste. In Cleveland it has been found that some frozen fruits give a better color and flavor to pies than some of the canned fruits. They also add to the appearance of the product. If meringues are used on top of cream pies, they should be well baked and browned. They should be so spread on the pies

that they do not crack at the edges. Browned cocoanut or delicately colored cocoanut adds color to the counter. In serving meringue pies, if the workers are instructed to dip the knife in hot water before cutting and between each cut, a cleaner slice will result than if the pie were cut with a dry knife.

Puddings are a splendid means of introducing fruit and milk into the child's diet. Children often do not like to drink milk but are willing to eat baked custards and cornstarch puddings. In this way they get the amount of milk they should have. These desserts should be placed so that the child sees them before he comes to the pies and cakes on the counter. As a result, he is encouraged to buy foods that are more healthful for him. A great deal of color can be added to the counter by these desserts. The use of fruit and gelatin desserts gives a brilliancy to the counter and helps to make it much more attractive. Gelatin can be obtained in practically any color and used in various ways. It may be cut into cubes, used with fruit, whipped with a fork or used with whipped cream or custard either on top or stirred with the jelly. Garnishes that are used on desserts should be varied. "Rubyettes," "emeralettes," colored sugar, preserved fruit, bits of fresh mint, frosted cookies or cookies dropped in chopped nuts may be colorful additions to simple custards or sauces. Whipped cream put through a pastry tube will make the cream go further and sometimes adds to the general tone of the counter. A quantity of fresh fruit, stewed fruit and fruit cup should be exhibited on the counters. We have found that by selling these at cost we can increase our sales and reduce the amount of pastry sold. In one school where 630 cuts of pie a day were sold, those in charge emphasized the use of stewed fruit and sold it for two cents, at the same time charging six cents for pastry. As a result the sale of pies was reduced to 180 cuts.

### *Color Is Important Factor in Dessert Display*

Cake should be put on the counter so that the most attractive side is to the customer, and all pieces should face the same direction. Color arrangement is again an important item. Desserts should be of contrasting color and not clash with the foods on the steam table. For example, red raspberry pie served with banana cream pie is much more attractive than apple pie served with caramel cream pie. Chocolate cake looks more attractive next to white cake with fluffy fresh cocoanut frosting, than next to spice cake with orange frosting.

Pleasing effects can be accomplished by planning menus with a definite color harmony. Some one color can predominate the entire scheme, with its complement as a foil; or a triad of color can be used to excellent advantage. The general appearance of the counter is greatly influenced by the color scheme of the foods offered, and careful planning ahead will prevent an appearance wherein there is a hit-and-miss jumble of foods or conflicting colors and an undesirable general appearance.

Not only are color and cleanliness of prime importance; the arrangement of the foods should give an appearance of order. The arrangement should be such and provision for replacement so made that the general appearance of the counter is maintained from the first to the last period of service. Near the close of the day's service when business is decreasing, it is, of course, undesirable to have a quantity of surplus food left. To keep the counter attractive it is advisable to close one counter completely and maintain an ample supply of food at the other.

### *Planning the Menus*

The lunchroom management must determine the foods that will appear upon the counter. In the senior high schools in Cleveland, meat, meat substitutes, two or three vegetables, at least two or three salads, puddings, fruits, fruit cup, ice cream, cake, milk, milk chocolate, bread, rolls, sandwiches and butter are offered daily. Pies may or may not be served each day.

Consideration must be given to foods that will make a consistently good appearance on the counter. The same recipe should not be repeated the same week. The menu planned should be appropriate for the season and the temperature, and due consideration should be given to holidays. This year when parents are economizing so strenuously at home, the Cleveland lunchrooms have made special efforts on Halloween, Christmas, Thanksgiving, Washington's birthday and similar occasions to give special menus and to provide for each child some little extra to make the meal more festive.

The food menu of the lunchroom must be planned with due consideration for equipment, neighborhood nationalities, the financial status of the patrons and other vital considerations. The fact that children are the patrons is of vital importance. Food cooked in deep fat is not easily digested. Children should not be served beverages other than fruit juices, milk and milk chocolate made out of whole milk. Hot breads should be eliminated from the children's counter, although at times they will form a pleasing addition to the teachers' diet. In the planning of menus, pains should be taken to assure the proper ratio between expensive and inexpensive foods. If the cafeteria

is serving expensive meats, then plans should be made to serve an inexpensive substitute, and vice versa. Great care should be taken to plan food that does not entail too much labor. Sometimes the cheapest food is expensive if you have too high an overhead due to preparation.

A number of cafeteria systems are introducing specials into their lunchrooms. In Cleveland, specials are served at various prices. An eight-ounce bowl of soup, two slices of whole wheat bread and butter are sold for three cents. Another three-cent special consists of a bottle of milk, two slices of whole wheat bread and butter. A salad special which consists of an eight-ounce bowl of soup, a salad, two slices of whole wheat bread and butter and a bottle of milk is sold for ten cents. An eight-cent special includes whole wheat cereal made with Spanish sauce, cabbage slaw and a bottle of milk, or it may be a vegetable soup with two tablespoons of whole wheat, two slices of whole wheat bread and butter, a fresh fruit and a plain cookie. The five-cent special would be half a pint of milk and a sandwich. The fifteen-cent special white plate includes meat or a meat substitute, a fresh vegetable or a salad, potatoes, whole wheat bread and butter, a half pint of milk, stewed fruit or fresh fruit, or, once a week, ice cream.

*Specials That Other Cities Serve*

Other cities follow a similar scheme. For example, Detroit schools serve mashed potatoes and gravy, a lettuce sandwich, a fruit cup and a cookie and a bottle of milk for ten cents in the intermediate schools, and in the high schools a meat patty, stewed tomatoes, mashed potatoes and gravy, a buttered roll, prune whip and milk may be purchased for fifteen cents. In Atlantic City, N. J., a fifteen-cent special consisting of meat, potatoes and a vegetable is served. Rochester, N. Y., offers a meat or meat substitute, a vegetable and potato for fifteen cents. It also offers a cold plate lunch of salad, cold meat, a roll and butter and a pickle for twenty-five cents.

In some of our schools it has been found that the children will eat only certain vegetables, such as peas and corn. To meet this situation educational campaigns have been put on to encourage the children to eat a larger variety of vegetables. We have found that, by giving a tablespoon of a fresh vegetable, very carefully prepared, with every serving of mashed potatoes (this is given gratis) our vegetable business has gradually and greatly increased.

The final test of the success of any business organization is its ability to market its product. No matter how careful the preparation, the product is of little real value until it is sold. No sales organization can obtain repeat orders of a product that does not give satisfaction to the customer. We might change the old motto from "The proof of the pudding is in the eating" to a more modern text which would read, "The proof of the pudding is in the selling."

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## Helping the Child to Form Right Mental Habits

"New York, Pennsylvania, Virginia and Massachusetts have developed an extensive system of mobile psychiatric clinics which are available for advice to adults, for child guidance work and for service to courts and schools.

"The possibility of utilizing the facilities of psychiatric clinics operated by private organizations should not be overlooked in the localities where they exist. There is little doubt that as time goes on the number of clinics, both public and private, will gradually increase so that they will become more available to the smaller centers of population. The growing demand for these services must bring about their establishment."

Thus speaks Dr. Winfred Overholser, assistant commissioner of mental diseases for Massachusetts, in connection with the recent issuance of the 1931 Year Book of the National Probation Association.

The extension of child guidance clinics in school systems for the purpose of discovering and treating behavior problems before antisocial habits are deeply rooted is urged in the Year Book. Clinics for the mental and physical examination of court cases are also advocated.

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## What Do Old Graduates Think of Their High School Annuals?

What do high school graduates, especially those who have been out of school for a number of years, think of their high school annuals?

To ascertain the answer to this question, a questionnaire was sent to 1,369 graduates of Garfield High School, Terre Haute, Ind., covering a period of fifteen years. Out of this number, 480 replied.

The preponderance of evidence is decidedly in favor of the high school annual. The graduates kept the books in accessible places for ready reference, but they made frequent references to the annual only during the first few years after graduating. The commonest values the graduates said they found in their annuals were that of a memory book and that of a reference book.

*Basic Administrative Problems:*

# The City Superintendent Analyzes His "Board" Difficulties

By JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

IN THE January, 1932, issue of The NATION'S SCHOOLS, an analysis of administrative difficulties between high school principals and high school teachers as recognized by high school principals was presented. The following study is an analysis of administrative difficulties between superintendents and boards of education as recognized by a group of 263 superintendents of schools in Wisconsin.

A group of thirty-five fundamental principles of educational administration involving the superintendent and board of education was formulated by means of a series of personal conferences with superintendents of schools. This list of thirty-five situations was then submitted to the superintendents of schools in Wisconsin with the request that they be classified as causing Major, Minor or No Administrative Difficulty. The following sized groups were used in classifying the returns: Group I—communities having a population of less than 1,000; Group II—communities having a population of 1,000-2,999; Group III—communities having a population of 3,000-4,999; Group IV—communities having a population of 5,000-9,999; Group V—communities having a population of 10,000 and over.

### *Difficulties That Were Encountered*

The list of situations presented was as follows:

1. Do you find it difficult to get your board of education to delegate to you full responsibility for the selection of teachers?
2. Do you find it difficult to get your board to realize that it is best to pay salaries high enough to get the best type of teacher?
3. Do you find it difficult to get your board to leave to your judgment the assignment of teachers?
4. Do you find it difficult to get your board to leave to your discretion the transfer of teachers?
5. Do you find it difficult to get your board to see that no teacher is dismissed without your recommendation?
6. Do you find it difficult to keep your board from being influenced by personal preference in the selection of teachers?
7. Do you find it difficult to get your board to raise salaries of teachers on the basis of merit, such as outstanding work?
8. Do you find it difficult to get your board to raise salaries or grant bonuses for professional improvement, such as attending summer school?
9. Do you find it difficult to get your board to leave all matters of discipline to your judgment?
10. Do you find it difficult to get your board to refer to you all matters of complaint coming from pupils and patrons?
11. Do you find it difficult to get your board to discourage teachers in bringing matters directly to the board without the matters first passing through the office of the superintendent?
12. Do you find it difficult to get your board to refer to you any matter of general policy presented to the board by any teacher, principal or supervisor?
13. Do you find it difficult to prevent the individual members of the board from passing judgment on matters when not in session?
14. Do you find it difficult to get your board to meet on regular dates?
15. Do you find it difficult to get your board to attend to business as promptly as the necessity demands? For example, a matter of policy, a dismissal of a teacher, if the teacher is failing in his work?
16. Do you find it difficult to get your board to accept the budget submitted by you based upon the needs of the respective departments of your school system?
17. Do you find it difficult to get your board to make plans looking far enough into the future? For example, a building program, selection of equipment or a graduated salary scale?
18. Do you find it difficult to get your board to visit other schools with a view to local improvements?
19. Do you find it difficult to get your board to do professional reading as a means of setting up higher standards for the community?
20. Do you find it difficult to get your board to grant you time and expenses for attending educational meetings?

21. Do you find it difficult to get your board to recognize merit rather than display as a standard? For example, does your board think more of service to your community than of units of affiliation?

22. Do you find it difficult to get your board to leave extracurricular activities to your judgment?

23. Do you find it difficult to get your board to take an active stand in the community when the schools and school policies are being attacked or criticized?

24. Do you find it difficult to get your board to influence the better citizenship to vote when the retrenchers are trying to elect all trustees?

25. Do you find it difficult to put over a long time program for your schools because of the frequency of the change in the personnel of your board?

26. Do you find it difficult to get your board to assume its share of responsibility for the schools?

27. Do you find it difficult to get your board to attend to business with the proper dispatch, that is, to attend to business in such a way that all matters that should come before a particular session are closed?

28. Do you find it difficult, when in session, to get your board to dispatch business systematically?

29. Do you find it difficult to prevent your board from being influenced by the "street sport" and the "drug store coach" in matters of athletics and school sports?

30. Do you find it difficult to get your board to give out to your community in a systematic way information with regard to school activities?

31. Do you find it difficult to prevent your board from allowing its informational service to the community to degenerate into propaganda?

32. Do you find it difficult to get your board to refer the budget to you for adjustment if any items seem to be in excess of what the board can meet?

33. Do you find it difficult to get your board interested in standardizing your school accounting system?

34. Do you find it difficult to get your board to recognize the principle that the tax levy should not be made until the needs of the community are known?

35. Do you find it difficult to get your board in-

ADMINISTRATIVE DIFFICULTIES BETWEEN SUPERINTENDENTS AND BOARDS OF EDUCATION AS REPORTED BY SUPERINTENDENTS IN WISCONSIN

| Situation | GROUP I Per Cent Reporting Situation as: | | | GROUP II Per Cent Reporting Situation as: | | | GROUP III Per Cent Reporting Situation as: | | | GROUP IV Per Cent Reporting Situation as: | | | GROUP V Per Cent Reporting Situation as: | | | TOTAL Per Cent Reporting Situation as: | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Major | Minor | No | Major | Minor | No | Major | Minor | No | Major | Minor | No | Major | Minor | No | Major | Minor | No |
| 1 | 36.5 | 34.3 | 29.2 | 14.5 | 34.8 | 50.7 | 4.6 | 31.8 | 63.6 | 0.0 | 37.5 | 62.5 | 7.1 | 28.4 | 64.5 | 23.6 | 33.5 | 42.9 |
| 2 | 47.4 | 34.3 | 18.3 | 22.1 | 45.6 | 32.3 | 9.0 | 45.4 | 45.4 | 26.7 | 53.3 | 20.0 | 35.7 | 21.4 | 42.9 | 35.5 | 38.7 | 25.8 |
| 3 | 8.0 | 17.8 | 74.2 | 2.9 | 2.9 | 94.2 | 0.0 | 4.5 | 95.5 | 0.0 | 0.0 | 100.0 | 0.0 | 7.1 | 92.9 | 5.9 | 11.8 | 72.3 |
| 4 | 9.2 | 16.9 | 73.9 | 1.5 | 4.5 | 94.0 | 4.5 | 0.0 | 95.5 | 0.0 | 0.0 | 100.0 | 0.0 | 7.1 | 92.9 | 5.6 | 10.4 | 84.0 |
| 5 | 17.9 | 18.7 | 63.4 | 2.9 | 14.7 | 82.4 | 4.8 | 14.3 | 80.9 | 0.0 | 17.6 | 82.4 | 14.3 | 14.3 | 71.4 | 11.4 | 16.9 | 71.7 |
| 6 | 30.4 | 42.8 | 26.8 | 9.0 | 49.2 | 41.8 | 0.0 | 45.5 | 54.5 | 6.2 | 31.2 | 62.5 | 7.1 | 64.3 | 28.6 | 19.5 | 45.1 | 35.4 |
| 7 | 44.5 | 35.0 | 20.5 | 15.4 | 52.3 | 32.3 | 8.7 | 43.5 | 47.8 | 20.0 | 33.3 | 46.7 | 14.3 | 50.5 | 35.7 | 30.7 | 40.9 | 28.4 |
| 8 | 62.6 | 23.7 | 13.7 | 38.5 | 49.2 | 12.3 | 43.5 | 21.7 | 34.8 | 43.7 | 43.7 | 12.6 | 14.3 | 35.7 | 50.5 | 50.6 | 32.2 | 17.2 |
| 9 | 8.8 | 18.2 | 73.0 | 1.5 | 10.3 | 88.2 | 8.7 | 8.7 | 82.6 | 0.0 | 25.0 | 75.0 | 7.1 | 7.1 | 85.8 | 6.2 | 15.1 | 78.7 |
| 10 | 13.7 | 27.5 | 58.8 | 2.9 | 23.2 | 73.9 | 4.4 | 39.1 | 56.5 | 5.9 | 11.7 | 82.4 | 7.1 | 28.6 | 64.3 | 9.2 | 34.5 | 56.3 |
| 11 | 11.6 | 23.2 | 65.2 | 0.0 | 17.9 | 82.1 | 4.3 | 17.4 | 78.3 | 6.3 | 25.0 | 68.7 | 7.1 | 28.6 | 64.3 | 7.4 | 21.7 | 70.9 |
| 12 | 7.4 | 11.7 | 80.9 | 0.0 | 7.4 | 92.6 | 0.0 | 17.4 | 82.6 | 6.3 | 12.5 | 81.3 | 7.1 | 14.3 | 78.6 | 4.7 | 11.3 | 84.0 |
| 13 | 30.9 | 39.0 | 30.2 | 14.7 | 44.1 | 41.2 | 9.2 | 45.4 | 45.4 | 12.6 | 43.7 | 43.7 | 14.3 | 57.2 | 28.5 | 22.6 | 42.0 | 35.4 |
| 14 | 38.8 | 18.0 | 43.2 | 24.6 | 14.5 | 69.0 | 16.7 | 20.8 | 62.5 | 0.0 | 5.9 | 94.1 | 7.1 | 28.6 | 64.3 | 28.9 | 15.6 | 55.5 |
| 15 | 17.4 | 31.9 | 50.7 | 12.1 | 25.8 | 62.1 | 9.5 | 23.8 | 66.7 | 0.0 | 18.8 | 81.2 | 0.0 | 21.4 | 78.6 | 13.3 | 28.3 | 58.4 |
| 16 | 20.4 | 35.0 | 44.6 | 7.7 | 30.8 | 61.5 | 0.0 | 27.3 | 72.7 | 0.0 | 17.6 | 82.4 | 0.0 | 21.4 | 78.6 | 12.9 | 31.4 | 55.7 |
| 17 | 35.6 | 38.5 | 25.9 | 25.0 | 52.9 | 22.1 | 18.2 | 31.8 | 50.0 | 11.8 | 41.2 | 47.0 | 14.2 | 42.9 | 42.9 | 28.5 | 42.2 | 29.3 |
| 18. | 46.2 | 31.5 | 22.3 | 39.4 | 40.9 | 19.7 | 22.7 | 40.9 | 36.4 | 25.0 | 43.7 | 31.3 | 38.5 | 7.7 | 53.8 | 40.4 | 34.3 | 25.3 |
| 19. | 60.1 | 27.7 | 12.2 | 45.1 | 40.4 | 14.5 | 38.0 | 38.0 | 24.0 | 38.4 | 38.4 | 23.2 | 46.2 | 30.8 | 23.0 | 52.7 | 32.7 | 15.3 |
| 20 | 28.3 | 28.3 | 43.4 | 20.0 | 27.7 | 52.3 | 9.1 | 22.7 | 68.2 | 7.1 | 35.7 | 57.2 | 14.3 | 7.1 | 78.6 | 22.8 | 26.7 | 50.5 |
| 21 | 11.2 | 44.4 | 44.4 | 7.6 | 28.8 | 63.6 | 12.0 | 24.0 | 64.0 | 6.8 | 13.3 | 79.9 | 7.1 | 35.7 | 57.2 | 9.9 | 35.9 | 54.2 |
| 22 | 6.5 | 8.7 | 84.8 | 1.5 | 16.2 | 82.3 | 4.3 | 30.4 | 65.3 | 0.0 | 11.1 | 88.9 | 0.0 | 14.3 | 85.7 | 4.2 | 13.0 | 82.8 |
| 23 | 8.6 | 29.5 | 61.9 | 3.0 | 14.9 | 82.1 | 4.3 | 34.8 | 60.9 | 14.3 | 7.1 | 78.6 | 0.0 | 23.2 | 78.8 | 7.5 | 24.8 | 67.7 |
| 24 | 10.7 | 19.1 | 70.2 | 1.6 | 20.3 | 78.1 | 9.1 | 31.8 | 59.1 | 6.3 | 37.5 | 56.2 | 15.9 | 15.9 | 69.2 | 8.1 | 21.6 | 70.3 |
| 25 | 22.3 | 22.3 | 55.4 | 10.4 | 26.8 | 62.8 | 17.4 | 13.0 | 69.6 | 18.7 | 18.7 | 62.6 | 14.3 | 50.0 | 35.7 | 18.0 | 24.0 | 58.0 |
| 26 | 10.5 | 26.3 | 63.2 | 3.0 | 25.4 | 71.6 | 0.0 | 9.5 | 90.5 | 0.0 | 35.7 | 64.3 | 0.0 | 28.6 | 71.4 | 6.8 | 25.2 | 68.0 |
| 27 | 14.6 | 32.1 | 53.3 | 7.7 | 37.0 | 55.3 | 4.5 | 39.1 | 56.4 | 0.0 | 33.3 | 66.7 | 0.0 | 21.4 | 78.6 | 10.3 | 33.4 | 56.3 |
| 28 | 17.3 | 30.8 | 51.9 | 6.0 | 37.3 | 56.7 | 8.7 | 17.4 | 73.9 | 0.0 | 25.0 | 75.0 | 0.0 | 14.3 | 85.7 | 11.5 | 30.0 | 58.5 |
| 29 | 9.5 | 21.9 | 68.6 | 4.5 | 19.4 | 76.1 | 0.0 | 22.7 | 77.3 | 12.5 | 25.0 | 62.5 | 21.4 | 7.1 | 71.5 | 8.2 | 20.7 | 71.1 |
| 30 | 19.5 | 38.3 | 42.2 | 9.1 | 33.4 | 57.5 | 9.5 | 23.8 | 66.7 | 6.3 | 18.7 | 75.0 | 7.1 | 28.6 | 64.3 | 14.4 | 34.0 | 51.6 |
| 31 | 9.9 | 26.6 | 63.5 | 5.9 | 26.5 | 67.6 | 9.2 | 18.4 | 72.4 | 0.0 | 12.5 | 87.5 | 14.3 | 7.1 | 78.6 | 8.4 | 24.9 | 66.7 |
| 32 | 14.3 | 29.3 | 56.4 | 12.5 | 21.5 | 67.0 | 4.8 | 9.6 | 85.6 | 6.3 | 18.7 | 75.0 | 0.0 | 28.6 | 71.4 | 11.8 | 24.9 | 63.3 |
| 33 | 16.0 | 24.4 | 59.6 | 12.5 | 23.4 | 64.1 | 0.0 | 9.6 | 90.4 | 6.7 | 13.4 | 79.9 | 0.0 | 21.6 | 78.4 | 12.7 | 23.1 | 64.2 |
| 34 | 13.7 | 33.9 | 52.4 | 8.7 | 18.9 | 72.4 | 0.0 | 5.3 | 94.7 | 0.0 | 25.0 | 75.0 | 15.4 | 7.7 | 76.9 | 10.3 | 25.4 | 64.3 |
| 35 | 18.6 | 39.0 | 42.4 | 23.2 | 26.8 | 50.0 | 5.9 | 23.5 | 70.6 | 15.4 | 46.2 | 38.4 | 16.7 | 16.7 | 66.6 | 19.4 | 35.4 | 45.2 |

terested in adopting a budget on the unit cost basis, such as school population, average daily attendance?

The percentage of superintendents in each sized group reporting the various difficulties are presented in Table I.

The following conclusions should prove helpful to superintendents in similar sized communities throughout the country.

Superintendents in the smaller communities apparently have more major difficulties with respect to the situations involved than do superintendents in larger communities. This seems to be particularly true in the communities having a population of 3,000 to 4,999.

The following situations are those that cause most difficulty for the group as a whole as revealed by the study:

1. Do you find it difficult to get your board to delegate to you full responsibility for the selection of teachers?
2. Do you find it difficult to get your board to realize that it is best to pay salaries high enough to get the best type of teachers?
3. Do you find it difficult to keep your board from being influenced by personal preference in the selection of teachers?
4. Do you find it difficult to get your board to raise salaries of teachers on the basis of merit, such as outstanding work?
5. Do you find it difficult to get your board to raise salaries or grant bonuses for professional improvement, such as making it possible for teachers to attend summer school?
6. Do you find it difficult to prevent the individual members of the board from passing judgment on matters when not in session?
7. Do you find it difficult to get your board to meet on regular dates?
8. Do you find it difficult to get your board to make plans looking far enough into the future? For example, a building program, selection of equipment, or a graduated salary scale.
9. Do you find it difficult to get your board to visit other schools with a view to local improvements?
10. Do you find it difficult to get your board to do professional reading as a means of setting up higher standards for the community?
11. Do you find it difficult to get your board to grant you time and expenses for attending educational meetings?
12. Do you find it difficult to put over a long time program for your schools because of the frequency of the change in the personnel of your board?
13. Do you find it difficult to get your board interested in adopting a budget on the unit cost basis, such as school population, average daily attendance?

It is significant to note that practically all of the principles reflecting a good deal of administrative difficulty as reported by Wisconsin superintendents of schools are stressed in courses in educational administration throughout the country. It seems that a greater effort should be exerted both by those who teach and those who practice educational administration toward the adoption of sound policies with respect to the matters involved.

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## Private High Schools and Their Enrollments

Privately supported high schools and academies in the United States are reaching a stationary position in enrollments, according to Emery M. Foster, chief, division of statistics, Office of Education.

A few denominational institutions, however, continue to expand, particularly the Catholic. On the other hand, certain other denominational schools have been disappearing and their enrollments declining. It has become too expensive, Mr. Foster says, for the small privately supported and denominationally supported institutions to meet in many instances the educational demands and opportunities of the publicly maintained ones.

However there is invested in 2,760 private high schools and academies, representing 84.7 per cent of the number throughout the country, $625,600,000, in addition to endowment funds of $79,500,000.

The six denominations reporting the largest number of schools are Roman Catholic, 1,648; Episcopal, 97; Methodist, 77; Seventh-Day Adventist, 74; Presbyterian, 71, and Baptist, 66. There were 647 schools reported nonsectarian.

There were enrolled 329,050 elementary pupils, 309,052 secondary pupils, and 8,069 postgraduate and collegiate students in these schools in 1930. This is a total of 646,171 pupils, as against 553,260 reported in 1928 and 437,008 in 1920.

In 1928 statistics showed 49.31 per cent of the enrollment in elementary departments, 48.67 per cent in secondary departments, and 2.02 per cent in postgraduate and college departments. In 1930 these percentages were 50.92, 47.83, and 1.25, respectively, which shows little change in the proportion. This change may be due to the character of the 300 additional schools reporting their enrollments in 1930.

In 1930 these 2,760 schools had more than 6,300,000 bound volumes in their libraries.

# Editorials

## Local Guidance Committees Aid in the Present Emergency

TODAY practically every educational enterprise worthy of its name is finding it advantageous to reinventory its present activities, to reevaluate its past achievements, and to rechart its future services. Furthermore, this educational audit is being taken amidst many confusing currents of social and economic readjustment. Face to face with many urgent demands for modified educational services, the wise school administrator will recognize the importance and necessity of these temporary provisions without losing sight of their place and value in the more permanent program of the future.

Perhaps none of these requests for educational "first aid" is proving more disconcerting and yet challenging than the one presented by parents and other interested citizens who would urge immediate assistance for several groups of young persons now out of school. For some time we have been aware that, because of existing economic conditions, those boys and girls who dropped out of school by choice or necessity were in need of specific guidance to assist them in solving their educational and occupational problems. More recently, however, large numbers of the graduates of high school, of special vocational courses and even of college have been drifting more or less aimlessly.

A recent survey reveals that only a few of the high school and vocational school graduates who were unable to attend college as planned, or to find employment as desired, are now electing postgraduate courses in high schools, obtaining supplementary preparation at vocational or part-time schools, and pursuing college and other correspondence or extension courses. On the other hand, this same study of a representative group of cities shows large numbers of these young persons without an educational chart and an occupational compass. Of more significance is the fact that they enthusiastically state they would welcome any guidance assistance that can be offered to them at this time.

These specific emergency demands now being made upon local educational agencies exceed anything that most school administrators have known in the past. Furthermore, it is coming to be realized that notwithstanding the worth of the long time program, educational offerings as well as guidance practices must meet the present challenge and "acid test" of practicability on a temporary service basis if they are to continue to retain the full confidence of the community interests in the future. Although the total problem is larger than the school system or any other single local agency, nevertheless educational leadership is imperative if the whole community is to be harnessed for action to assist boys and girls in their present distressing plight.

It is interesting to note that already several farsighted administrators have been active in sponsoring the organization of so-called local guidance committees, councils or cabinets. These usually include active representatives chosen from the communities' leading educational, social and civic agencies as well as from business, industrial, professional and other live organizations. As would be expected, the activities of these local guidance committees differ considerably because of their respective needs and problems. The most effective results to date, however, are reported in instances where the actual guidance assistance was rendered following a rather complete survey of the definite needs of all individuals concerned. In these cases, the services of the committee were made known through direct letter invitations, general publicity methods and various agency and organization announcements. As far as possible every effort is being made to give each young person interested an opportunity to be heard by the committee.

Almost all of these committees have expressed considerable encouragement because of the community's favorable reactions to their concerted efforts to aid with such problems as educational planning, personality adjustment, occupational selection, vocational preparation, financial provision and the like. Of course it is too early to judge the permanent worth of these temporary guidance experiments. Yet it will suffice to mention that a few of the preliminary reports point to advantages of a far-reaching nature in the more effective organization of the various agencies, more economical administration of available funds and better coordination of the available services.

One report states that in a city of 350,000 population it was discovered that literally thousands of dollars had been wasted annually because guidance methods were not used to ascertain if the money spent by individuals and organizations represented a worth while investment rather than an out-and-out gamble. Another writes from a smaller city that as a result of the local guidance council's activities of the past four months, their community has had a common purpose and complete cooperation from all social, civic and other local agencies for the first time in recent years.

At any rate, any school administrator who will have participated in the successful development of these much needed "first aid" guidance services, is certain to experience little future difficulty in gaining the whole-hearted backing of his community in providing an adequate guidance program to aid all school children. Consequently, although the provision of emergency services in guidance as a community responsibility may be frowned upon by the busy school executive, he must not lose sight of the fact that any urgent demand for educational service, even though it be temporary, may prove to be a future opportunity as well as a present obligation.—*A. H. E.*

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## A Dream Beginning to Come True

SCHOOL executives who are responsible for the selection of a teaching staff are always looking for teachers who possess adequate knowledge for the instruction of the young and who also possess personal qualities that will make them leaders in the community in which they labor. In addition, they usually strive to find teachers who have had some experiences outside of the academic field so that they can interpret modern American society accurately to their pupils.

This is the type of teacher for whom executives are always searching. What do they find, as a rule? Young men and women who have successfully completed elementary and secondary academic courses, a course in a teachers' training school or a course in a collegiate institution with a few hours of professional study. These novitiates have had to devote themselves almost completely to their academic work and to their professional courses without any participation in life outside of the classroom. They have not traveled; they have not engaged in political or civic activities; they are serious minded, somewhat austere and resistant to the indulgences in which others generally participate.

They are selected for teaching positions principally because they have attained high marks in their academic and professional courses. Latterly, some attention has been given to qualities of leadership in teachers; but personality traits have not played and do not now play a dominant rôle in determining whether a young man or a young woman will or will not be chosen to teach in any community in this country. The teaching profession has put a prize on formal scholarship rather than upon personal qualities that ensure leadership. One can go anywhere today and hear those who select teachers say that the first and chief requirement in a teacher is to know the subjects he must teach. Everything else is subordinate and relatively unimportant. Many school executives who select teachers would not subscribe to this doctrine, but when they come to choose teachers they do not have much option because those who prepare for the profession are for the most part academic types who have always stressed formal scholarship.

But now comes an announcement from Teachers College, Columbia University, that an experiment is about to be made in selecting candidates for teaching and in training them on a different plan from that which has been followed heretofore. No candidates will be admitted to this new training college who do not possess outstanding personal characteristics that will ensure them leadership among the pupils whom they may teach and the patrons of the school in any community in which they may labor. Each candidate must have had actual contact with some industry so that he will understand the conditions his pupils will encounter and to which they must adapt themselves when they leave his hands. Further, he must spend some time in travel in order that he may gain an understanding of contemporary social life so that he can interpret this life accurately and adequately for his pupils.

If this plan of training teachers proves to be professionally and financially practicable, what will be the outcome? The dream of school executives will come true—that they may be able to obtain teachers who know the forces that are determining present day American life, who possess personal characteristics that will win them the confidence, the good will and the esteem of pupils and citizens, and who at the same time can teach their particular subjects in an expert way. Then the teaching profession will appeal to superior young men and young women as forcefully as any other profession can do. The tangible rewards for teaching will be adequate to attract the most capable young persons in any community. The bases for selection will be so rigorous that the present overcrowded condition will be relieved.

As it is now, any serious, academically minded young person can comply with the requirements for a teachers' license and so the profession has become congested; there are many holding teachers' certificates who are not needed in the profession. This difficulty will be corrected when the new program for training teachers gets well under way. It is anticipated that the experiment at Teachers College will be valuable principally because it will show all teacher training colleges how to select superior candidates for teaching and how to train them so that they can render expert technical and social service.

## Are We Keeping Our Educational Thinking Straight?

DURING the present period of abnormal economic stress, superintendents of schools are devoting more time and energy to problems of finance and less to problems of education. Of course the pressure of organized minorities frequently supporting unjustifiable demands, the obstacle of decreased school funds resulting from questionable action influenced by financial hysteria and similar factors are requiring considerable attention at this time.

On the other hand, the superintendents should not overlook the pronouncements being made by outstanding statesmen to the effect that the sound education of children must not be impeded. These champions of the "inalienable rights" of children are sounding a warning needed by school officers as well as by laymen.

When the depression has passed on, as previous depressions have done, adjustments which have been made during this period should be such that they may be expected to stand the test of time. Superintendents of schools must continue to champion the cause of the children, who cannot make themselves heard, in order that the educational thinking of laymen, especially, may be kept unquestionably sound.

Schools should retain the best trained and most skillful teachers who have proved their worth rather than displace them by poorly trained and less successful teachers because they offer themselves for less money. Obviously school systems will be buying less service for each dollar expended when they follow the latter practice in the hope of reducing school costs. For the same reason, the addition of new teachers with or without experience should be marked by the continuation of previous practice—seeking those persons who are better trained than the best now employed in order that upgrading of the staff be thus furthered. Since these new members have invested more in themselves than have those teachers previously employed, the former are entitled to a fair return on their additional investments.

When the vision of both laymen and superintendents was unimpaired by such conditions as temporarily exist today, they were seeing clearly the urgent need for extending the period of schooling for all persons. The longer school year, the extension of the school program to include children at a younger age than in the past, the raising of the compulsory age of attendance and the elimination of half-day sessions are typical of the trends. They were occurring because our life is growing more complex rapidly, and hence children need much greater training to live in it and to prepare for the even more complex life immediately ahead of them. In spite of the depression, these educational needs are still pressing and, in fact, will be unwisely ignored in any program which is planned without giving them due weight.

In the last two decades, educational leaders have been stressing the necessity for studying and meeting the specific needs of children. Until 1931, many school systems were moving efficiently in the direction of accomplishing this educational end. The actual number of children per teacher was reaching a point where each child could be studied thoroughly and given the individual attention that diagnosis indicated he required. Surely the recent tendency to save money by increasing the size of classes without the support of scientifically sound research data to warrant such a program cannot be justified educationally. We should hesitate, also, to increase the teaching load without valid evidence that in the long run the health of the teachers will not be impaired or that they will be thus prevented from becoming more efficient in their work.

On these points, superintendents can well afford to profit by the lessons from mass production in industry. The efficient executive in business recommends to his employers facilities for increasing production per worker only when such facilities ensure preferably a more perfect product than that turned out by other means. The executive also strives to utilize the time and energy of the employees so that they are working most efficiently. The school executive has to keep in mind a more complex product—the efficient development of children. In dealing with his educational responsibilities during the present times, is he keeping his educational thinking straight?—*G. C. K.*

N·S

## Preparing for the Horace Mann Centennial

THOSE persons who are beginning to think of the Horace Mann Centennial in 1937 will be interested in "The American Lyceum," Bulletin 1932, No. 12, issued by the Office of Education.

This manuscript as prepared by Cecil B. Hayes of Stanford University, California, represents a contribution to American educational writing, offers a valuable background for the discussion of the life work of Horace Mann and provides an excellent illustration of the old American habit of getting together voluntarily to do a piece of work.

It is a bulletin of only fifty-three pages and well worth reading.—*W. J. C.*

# *Happy to Say*—By WILLIAM McANDREW

AND along with the depression comes blithesome May. Better call in her stern brother, Must. They're a good working team.

HENRY FORD continues to shout that everything is paid too much but work. Service, not dividends, is the slogan for these depressed times. Right, Henry. The most productive wages this country pays are to its teachers. They are the real makers of prosperity. Every cent you pay them goes into better service. Every cut you inflict on them takes a prop from under the national structure.

ALBERT BUSHNELL HART gives me this for you to cut out and paste in your hat: "Americans love an honest man, and that means not only one who doesn't steal but one who is consistent and candid, who can disagree with public opinion if necessary and whose policy is open, aboveboard, free from secret ties. Americans love a man of courage, who has positive opinions and adheres to them; who can resist pressure; and they would rather have obstinacy than a facile will; they want a man who can stand against influence, abuse and misrepresentation."

THE kind of manual training public schools need is that which will teach our graduates who go into politics to keep their hands out of the public till.

WALTER DILL SCOTT'S statistics lead to a conclusion you hoped might be true. Business failures are not due to low I. Q's. The factors responsible for the success of executives are not brilliance, or personal connections, but the old-fashioned thing called character, embracing persistence, self-denial, loyalty and work.

IN MANAGING schools, the difference between experience and science is the same as between a couple of ruts and a stretch of steel rails.

ONCE I heard Senator David A. Reed remark that in an army, a church, a business or a teaching staff, efficiency is proportioned to discipline. Lack of it spells defeat. All right, Senator, if the discipliner has in view something much more worth while than discipline.

SOME educational administration is the systematic way of doing things that ought not to be done at all.

IT'S foolish to worry about doing your best all the time. Who cares how artistically you cut bait? But when you try a surgical operation—what?

THE most masterly portrayal of your faults is that done by the one who doesn't know you. Imagination is the artist's best color.

THE way to bring a dreaded thing to pass is to fear it. Be afraid that you are going to be afraid and you will be. Hope for a fearful occasion in which to practice courage and you'll have a quiet inner laugh at the admiring crowd who say you are fearless.

WHEN professional books you ought to read and the books you want to read turn out to be the same, you should buy a high hat, for you have become truly professional.

TEACHERS live longer than most people and it seems longer. That is because, like married life, the teaching career has so much that is worth while.

IF YOU tell a teacher she is going to make a success, the first thing you know, she is one.

A QUARREL is a project that starts with two small minds and a little wrong and develops two big boobs, both right.

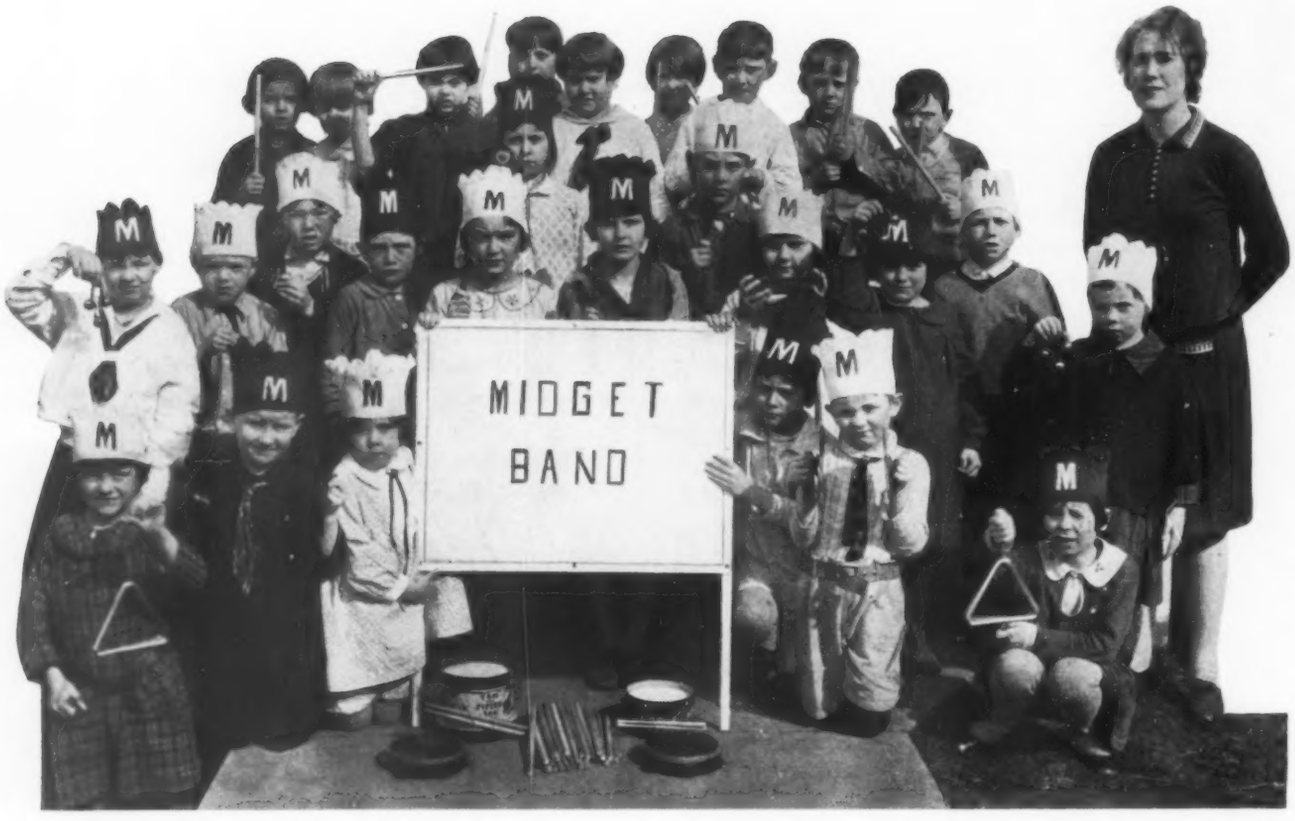
WHY wait for Opportunity to knock at the door? Go out, find her and yank her in.

A LOG can float down stream but it takes a lot of paddling to keep merely in one place.

"WILL you be mine?" is an outdated proposal. Let the lover say, "Shall we be ours?"

A SCHOOL nurse can prevent the spread of measles, but she can't stop the contagion of happiness that a radiant teacher makes epidemic and chronic.

OLD DOG. "How came you to take a college chair at less salary than your superintendency?" I asked one of our stars. "I believed with Jo Jefferson that a well-bred dog quietly withdraws the moment he detects the shadow of an intention to kick him out." At that rate some boards would have perpetual quiet.




# Planning an Activities Program for the Small Rural High School

By A. WINFIELD TRAINOR, District Superintendent of Schools, Fourth District, Lewis County, New York

*This department of rural education is conducted by Helen Heffernan, chief, division of rural education, state department of education for California, Sacramento.*

FARM and village people are beginning to demand that rural boys and girls be given an educational opportunity more nearly equal to that offered by cities and larger towns. This has resulted in the small rural high school taking account of itself to the end that it may develop an effective program, one that may win community support and promote the full growth and development of rural youth.

When the small rural high school is actively alert to the educational needs of its children, usually there will be found back of it a community conscious of modern progress and characterized by a spirit of tolerance and cooperation. In such situations the school board, made up of representative persons of the community, is found meeting in consultation with the principal and the district superintendent of the school, to formulate its educational policies.

Fine buildings alone do not make satisfactory schools. The effective small rural high school recognizes the necessity of making school life real life for children by giving them experiences in which they participate as individuals and as groups, in addition to giving them formal book training. It is for this reason that the small rural high school has found it necessary systematically to organize and carefully to administer an activi-

*"Something to interest each pupil" is the slogan of the activities program in this rural school. The high school boy at the left is an enthusiastic student of the agricultural course offered, while the happy elementary pupils shown in the lower picture are taking advantage of the play apparatus that is a part of the modern program.*

ties program for all of the children under its care, a program calculated to give each one an opportunity to experience, to grow and to develop physically, mentally, socially and spiritually.

The small rural high school that measures up to its best standards proceeds on the theory that rural children are entitled to pleasure, joy and enthusiasm in their school life. It has found that when this is the case fewer employment certificates are issued, the attendance is regular, the children learn better and they grow and develop more fully. As one farmer expressed it, "You cannot keep the children away from school." This is where the activities program functions effectively. Boys and girls take part in carefully organized experiences that develop individual and group initiative, cooperation and school spirit. Joy is kindled and enthusiasm in school life is aroused. This program recognizes living experiences involving activity, play and social relationships as a vital part of every child's education.

The activities program functions both through so-called extraclass activities and through regular classroom procedures. For elementary pupils, it utilizes playground apparatus, supervised play and games, folk dancing, music and singing, schoolroom play materials, educational seat-work materials, sand tables, special tables and chairs for group and children's club work, easels for creative painting and drawing, materials for modeling and construction, adequate library resources, sufficient musical facilities, including a phonograph and records for developing music appreciation, a full line of instruments for the rhythm band in the lower grades so that every pupil participates, songbooks, dramatics, school parties, project work, units of study and craft work, with a carefully selected teacher in charge, willing to use and to supervise all of these resources in the interests of her children, while guiding them into a richer and fuller life.

The activities program in the small rural high school utilizes for the adolescent boy and girl a

varied program of studies with guidance, instead of a formal college preparatory course. It is arranged to give these children an opportunity to explore different fields and subjects in order to find out their individual aptitudes and interests before concentrating on a special line of work or studies. It offers to the boys shop work and manual training and in some cases agriculture; to the girls home making courses, including cooking, sewing and home planning; and to both boys and girls introduction to business through elementary business practice, typewriting and elementary bookkeeping.

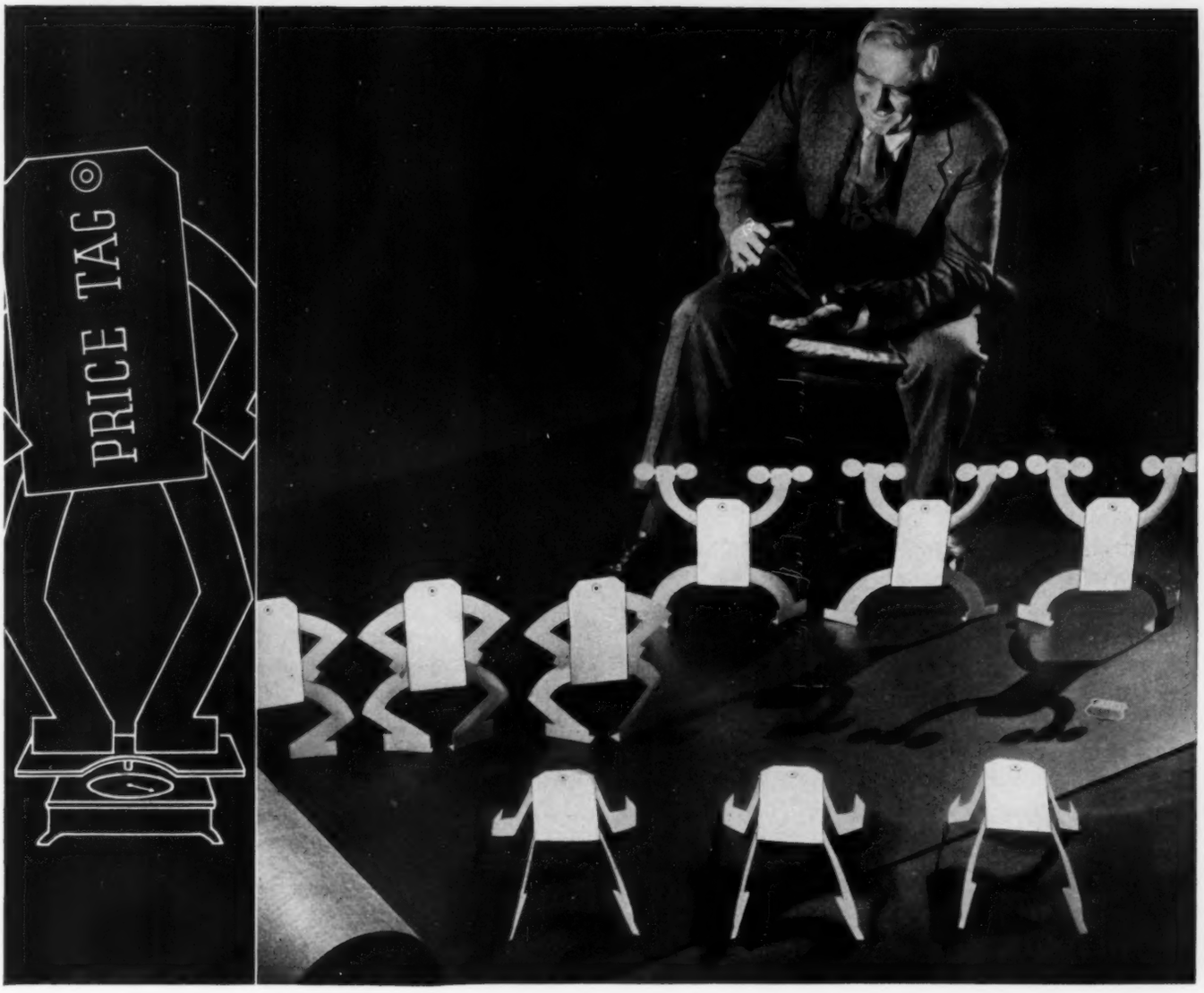
*Here we see the editorial staff of the rural high school paper in action.*

*Making Use of Extraclass Activities*

The activities program also makes large use of what is often spoken of as extraclass activities but which are now recognized as an important part of any effective educational program. In some of these small rural high schools every pupil takes part in a number of these activities, as they are planned to aid every rural child in the school to develop his body, his mind, his social relationships and his spirit through participation in experiences that are calculated to develop right social relationships, strong healthful bodies, alert active minds and helpful, cooperative, enthusiastic school spirit.

Pupils will be found taking an interested part in the weekly assembly periods; in the prize speaking tryouts and final contests; in debating; in supervised play periods where each pupil takes his turn, under the supervision of his teacher, acting as captain or leader of his group in volley ball, soccer, football, baseball, playground ball, girls' basket ball, so arranged that all girls may participate and played after girls' rules, boys' basket ball so arranged that every boy has his chance to participate and to play, not with the idea that a winning team must be developed, but with the idea that good sportsmanship is more important than to win; the school chorus and the school orchestra both of which are open to every pupil in the school with free instruction supplied by the school; the school paper; school dramatics; school and class parties at the school under faculty guidance and supervision, including games, banquets and dancing, and Boy Scouts and Girl Scouts organizations sponsored by the school and directed by teachers. In the classrooms, teachers and pupils will be found making use of activities embraced in such work as projects, units of study, creative writing, class reports on special research in class assignments, projects for the school assembly or for parent-teacher meetings, subject club projects, such as the French Club, the Latin Club, the Health Club, and projects utilizing the projection lantern.

The organization and administration of all activities should recognize the child as the center of the scheme. If live supervision and guidance are given by the faculty with every teacher taking his

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The reduced "figures" of our 1932 price tags should prove interesting to you. *Sealex Linoleum prices have gone down.* The excellent investment Sealex floor materials have always represented is even more attractive now. Their cost today is lower than it has been in many years.

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part of the responsibility, the educational values of an activities program are often greater than formal studies. Some high schools, however, leave nine-tenths of the children without participation in activities while they concentrate on the 10 per cent who are active and who need the help much less than the 90 per cent. The small rural high school should concentrate on all of the pupils so that they may receive genuine educational values. The small rural high school seeking to meet the present day needs of its children, in season and out, will work for the best interests of all the pupils.

The development of an activities program in the small rural high school is evidence of a new philosophy of secondary education, a broader philosophy that recognizes the needs of adolescent children and the requirements for a democratic form of society. It is a recognition of the fact that formal book studies confined to the classroom alone are too narrow to develop live interest and prepare the child for true living.

It has often been said that the aim of education is to make life richer, better and finer and that this includes bodily health, integrated personalities and better thinking. We believe that the activities program in the small rural high school, if properly organized and carefully administered by the faculty, helps to realize this aim more fully than formal studies alone, because it involves all of the child, his body, mind, feelings and emotions. From such education we may expect our socialized individual to emerge a good loser and a modest winner, a good citizen in the school community today and an effective member of tomorrow's democracy.

## Assuring the Safety of School Busses in Connecticut

Examination of the 500 motor vehicles which in Connecticut transport 12,000 pupils to 250 schools each school day, covering routes totaling more than 2,500 miles, has been begun by the inspection section of the motor vehicle department, according to Robbins B. Stoeckel, commissioner of the department.

The purpose is to make certain these children are protected from injury and death by insisting upon compliance with required standards of equipment for motor vehicles employed in this service.

Regulations have been in force for some years which demand a high degree of mechanical equipment and interior appointments for these busses. Recently there has been report of deviation from these required conditions in some instances. The inspection will ascertain where there has been laxity and will result in orders for remedy.

The department will investigate matters of seating arrangement, seating capacity, headroom, types of doors, methods of ventilation, weight of load, specific operating safety devices, means of protecting passengers when windows are raised and a number of certain items of mechanical equipment.

Cooperation of the school authorities is being asked by the department. Secretaries of school committees and boards of education in the various towns and cities are being invited to assist by reporting the names of motor vehicle registrants who are transporting children in their jurisdictions under any sort of agreement or contract with the authorities. Already there has been a large response.

Connecticut has been fortunate in its freedom from school bus accidents. Insistence upon the importance of safety features in connection with school bus operation is possibly largely responsible for the good record in this class of traffic. It will not be surprising to find in this check that there are few instances of departure from legal restrictions.

## The Ever-Increasing Burden of Special "Days"

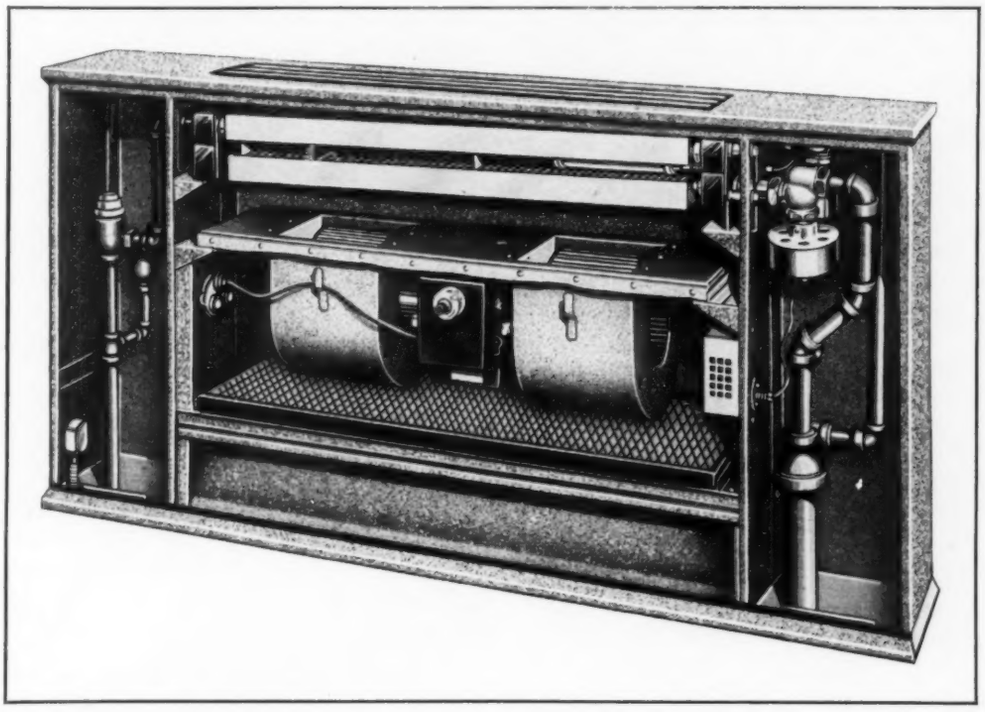
The increasing demand upon the schools for the observance of special "days," "weeks," holidays and half holidays has increased to the extent that it presents a real problem in school administration, says a resolution adopted at the Washington meeting of the Department of Superintendence. Many of these observances have little or no educational value and represent an attempt of commercial interests to advertise in the schools. Others, with more respectable sponsorship, do not make a contribution to the educational life of the schools commensurate with the effort and the energy required properly to administer them.

"When the relatively short time that pupils are in school, the cost of each school day and the difficulty of finding time to carry out the school program are considered, it is apparent that administrators and boards of education must take steps to discourage such encroachments upon the work of the schools," the resolution continues. "This department recommends that school administrators set up standards by which to measure the value of these requests and that a definite limit be placed upon the number of school projects to be undertaken in any one school year."

# Announcing Syncretized Air

THE TRUE HARMONY BETWEEN AIR STREAM AND ROOM TEMPERATURES

Syncretized air—achieved by the *new* Universal Duo-Luxe Units—is the greatest advance in unit heating and ventilating.



The Universal Duo-Luxe Unit incorporates the high velocity vertical discharge, as well as other essential requirements of good unit ventilation, plus the following distinctive features:

Definitely eliminates cold drafts by syncretizing, through automatic means, the air stream and room temperatures.

Effects operating economies because overheating is definitely avoided and because syncretizing control eliminates wide variations in air stream temperature.

Requires only 8 inches of aisle space, and is but 32 inches high.

All connections, controls, etc., are completely enclosed within a beautiful casing having a baked enamel finish.

Eliminates unsightly exposed piping, traps and valves.

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## News of the Month

# "Looking Ahead in Education" Is Theme of N. E. A. Program

"LOOKING Forward in Education" is the theme around which President Florence Hale has planned the program for the convention of the National Education Association which will be held in Atlantic City, June 26 to July 1.

The Sunday evening general session is being built around the topic, "Looking Ahead in Moral and Spiritual Relationships." Well known religious leaders will discuss the effect of current economic and social tendencies upon the age old reverence in which men hold the high ideals of religion.

The second general session will be devoted to the subject of "Education, Crime and Social Progress." Opinions differ as to whether or not crime is increasing in the United States. Students of criminology see a change in the types of crimes committed. Penologists are studying the relation of education to crime. Educators are developing new curricula and new methods of teaching ideals of sound character. Representatives of these three fields will discuss the school's part in the prevention of crime.

"School, Society and the Business World," a topic which greatly interested the thousands of teachers who attended the Los Angeles meeting last summer, will be the theme of addresses by outstanding leaders of business and education who will appear on the Monday evening program.

The Tuesday program will begin with a discussion of "Plans to Meet the Present Emergency in Education." This session will be of vital interest to every teacher. The schools have been successfully defended against the attacks made upon them in many communities. In some states and cities the efficiency of the school systems is still threatened. Miss Hale plans a consideration of the crisis which will result in placing behind every teacher and every community the combined efforts of local, state and national associations.

That educational associations not only plan to hold the line for the schools, but also to improve their services is a significant indication of the confidence and determination of the American teacher. Two sessions on Tuesday will be devoted to "Methods in the Modern School" and "Modern Trends in Education."

Since research and experimentation point the way in many of the innovations in education, the Wednesday morning session will be devoted to "Research and Educational Planning." Prominent specialists in research will summarize the contributions of their field to progress already achieved, and also discuss the direction in which projects now being carried out promise to lead educational practice.

Wednesday evening, Atlantic City teachers and students will present a George Washington Bicentennial pageant.

The Thursday sessions include a special program for "Teachers' Professional Organizations." It is designed to help city and county superintendents and association officers in making plans for institutes and conventions.

A unique feature of the convention program which President Hale plans is the presentation of both sides of some important controversial subjects. Well-known exponents of theory and practice, who disagree fundamentally in their conclusions will be invited to defend them before the convention sessions.

The success of the meeting will be greatly aided by the splendid convention facilities of Atlantic City. The auditorium is the largest of its kind in the world. Its design and equipment are the culmination of many years of experience in producing the best accommodations for large gatherings. The hotels are located conveniently with reference to the auditorium. Hotel rates have recently been much reduced.

The convention arrangement committee of the New Jersey State Teachers Association is leaving no stone unturned to make the convention a most enjoyable one.

## THE POWER TO FLY

Because of its great wing power the eagle has become the king of birds. Action! The idle Mimeograph can neither save nor earn. But for wise school administrators who keep its speedy cylinders awhirl reproducing examination sheets, notebook data, bulletins, maps, charts and office forms of all kinds by the hourly thousands, it is proving itself the king of economizers. Its remarkable facilities are being discovered anew in these tight-budgeted days. Let us show you what it will do for you. There's no obligation. Write A. B. Dick Company, Chicago, or see classified telephone directory for branch office.

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# News of the Month (Cont'd)

## Superintendents Choose Minneapolis for Next Convention

The sixty-third annual meeting of the Department of Superintendence of the National Education Association will be held in Minneapolis, February 25 to March 2, 1933.

## Progressive Group Will Hold Summer School in South

The Progressive Education Association will hold an elementary demonstration school and institute at Alabama College, Montevallo, Ala., from June 9 to July 16.

This school is designed for the benefit of the Southern states, and is the first of these schools sponsored by the Progressive Education Association which has been held in the South.

## N. E. A. Sponsors High School Paper Editorial Project

The division of publications, National Education Association, is sponsoring the second national high school paper editorial project, as a means of promoting the interpretation of education and the schools to pupils and the public. Editors of all high school publications printing editorials are invited to submit some of the best editorials of the year on subjects relating to education and the schools. Enrollment blanks and other information may be had upon request to the division headquarters, 1201 Sixteenth Street, N. W., Washington, D. C.

## Minneapolis Announces Summer School for Custodians

The annual summer school for janitors, engineers and custodians conducted by the board of education, Minneapolis, is to be held this year from June 20 to June 25.

The objectives of the summer course are: to give the student a better understanding of his job and his relation to the community; to analyze and present a selected group of topics in a summarized form, and to cover them in a week of intensified study and work; to demonstrate to the student not only how to do his work, but when and why.

The courses of study are arranged to carry on two training classes at the same time—one class for the students who are attending the school for the first time and seeking a general knowledge of public school janitorial-engineering work, and a class for the advanced students who have previously attended the school.

The summer training work is divided into three main divisions as follows: (1) housekeeping and sanitation; (2) heating and ventilating; (3) maintenance and management.

Those interested in the school should write to: Board of Education, Janitor-Engineer-Custodian Training School, 19th Avenue South and 2½ Street, Minneapolis.

## Half of Teachers in Maine Get Salary Reductions

Municipal appropriations of Maine towns and cities, made in most cases at annual meetings in March, indicate that approximately half of the public school teachers in the state will have to submit to reductions in salaries, according to Bertram E. Packard, commissioner of education.

About 7,000 teachers are employed, he said, and the average rate of reduction will be 6 or 7 per cent.

## International Relations Institute to Be Held

The Midwest Institute of International Relations will be held at Northwestern University, Evanston, Ill., June 20 to July 2. Experts are to conduct courses in world relationships and the important questions of the times such as war debts, disarmament and the Manchurian dispute.

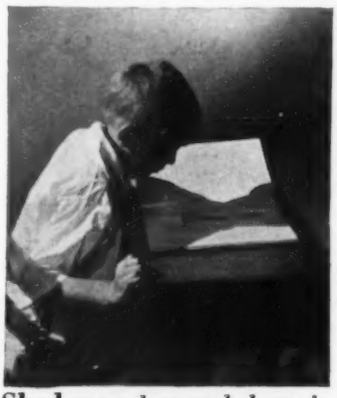
The institute is arranged by the American Friends Service Committee, which has already conducted similar institutes at Haverford College, Haverford, Pa.

Courses of college grade in the economic, political and spiritual phases of the struggle for world peace will run throughout the period of the institute, while shorter courses and single lectures will deal with special topics, or with methods of creating attitudes of international good will.

## Unbalanced

**Reflected glare:** *Should be only a diffused horizontal light.*

**Direct glare:** *Young eyes should have "helpful" light from above.*



**Shadows:** *deep and sharp, instead of flat, "smooth" and subdued.*

**Maintenance:** *Complicated. Glass-changing should be easier.*

# What balanced lighting means *to a child* . . . .

The difference between Balanced Lighting and *unbalanced* lighting may mean the difference between brilliant progress and apparent stupidity. Many so-called "backward" children are not backward at all; they work poorly merely because they work in poor light. They need Balanced Lighting.

The idea of Balanced Lighting is built not simply around a lighting unit, but around the lighting conditions that must be met. An efficient vertical light must fall on the work, but there must be no dazzling direct glare. There must be a gentle, horizontal light rather than trying reflected glare to strain young eyes unduly. There must be soft, restful shadows instead of hard annoying ones.

Each installation, of course, requires a different balance of conditions. A Graybar lighting specialist is available to help you secure the right balance for your particular needs.

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## Balanced Lighting

*Vision is at its best when all the many lighting factors are "balanced."*

## News of the Month (Cont'd)

### Associated Exhibitors Adopt Code of Ethics at Washington Meet

A code of ethics was adopted by the Associated Exhibitors of the National Education Association at their annual breakfast which was held this year on February 25 in Washington, D. C.

The business code as adopted by the exhibitors reads as follows:

"Believing the objective of all educators is service to mankind, we, the members of this association, pledge ourselves to contribute our just share to this service. In carrying out this pledge we shall endeavor to hold certain professional ideals in our relations with the schools and to adhere to the following business standards of practice. Failing to do so at any time, we admit our unworthiness to be members of the Associated Exhibitors.

"1. To work for truth and honesty in our relations with schools and to refrain from promising service which we know cannot be rendered.

"2. To strive to create confidence in our organization by deserving it and to avoid the use of questionable or unfair competitive methods.

"3. To help determine the just requirements rather than to oversell and thus to overload schools beyond their legitimate needs.

"4. To exert our efforts toward proving the quality of our own products rather than gossiping about the deficiencies of competitive products.

"5. To strive to conduct our business relations with schools on a fair and honorable basis at all times and to exchange our products, services and ideas at a price in keeping with a legitimate profit, doing so in such a way as to benefit both parties to the transaction.

"6. To promote a frank exchange of ideas involving mutual interests and to maintain friendly contacts with fellow members of this association.

"7. To encourage and cooperate with the educational associations and the educational journals in their efforts to disseminate useful and practical knowledge to our mutual benefit.

"8. To put forth every effort consistent with faithful business performance in order that we and our field representatives may follow sound recognized practices of constructive salesmanship.

"9. To adjust claims and settle disputes on the basis of facts only and in fairness, and not to resort to other measures unless all such courses prove ineffective.

"10. Neither to give nor to accept bribes and to avoid giving articles or gratuities with the intent to prejudice the recipient.

"We believe that a faithful observance of these standards will result in a mutual respect among ourselves and a general acceptance of our good intentions and high ideals of service by all educators."

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### Wyoming Plans to Wipe Out Illiteracy by July 1

Wyoming has set about to rid itself of illiteracy by July 1, according to Cora Wilson Stewart, chairman of the executive committee, National Advisory Committee on Illiteracy. With every county organized but one, and that one active, this state has launched a program which if followed by other states will quickly wipe out the menace of illiteracy. This is especially interesting because Wyoming has in actual numbers fewer persons unable to read and write than any state, there being not quite 3,000.

Classes among the Blackfeet Indians have again been in progress through the cooperation of the Office of Indian Affairs. The classes this year have proved even more successful than those last year. Practically all the Indians, old and young, who attended last year returned this year and showed remarkable improvement.

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### West Virginia Board Enjoined From Making Textbook Changes

A temporary injunction restraining the state board of education of West Virginia from proceeding further in carrying out changes in textbooks in four elementary school subjects has been granted in the circuit court of Kanawha County.

The injunction was sought by T. C. Townsend, tax commissioner, who contended that the board's action in ordering the book changes was illegal and contrary to public policy "in this time of business depression."

Judge Arthur P. Hudson announced that while the temporary order remains in effect he will conduct an inquiry into the changes which were ordered by the board of education in February.

# ACCEPTANCE—

## the MINNEAPOLIS HONEYWELL *Modutrol System*

*Two new school buildings in Worthington, Minnesota. Class rooms, Gym and Auditorium are under the accurate temperature control offered by the Minneapolis-Honeywell Modutrol System. Jacobson & Jacobson, Minneapolis, Architects; Frank Tustison Company, Minneapolis, Engineers; Fanskee & See, Worthington, Heating Contractors; C. H. Peterson & Co., General Contractors.*

Worthington Public Schools
WORTHINGTON, MINNESOTA

Feb. 27, 1932

Minneapolis-Honeywell Regulator Co.,
Minneapolis, Minn.

Gentlemen:

The Modutrol System of temperature control installed in the new Grade School Building and the Gym-Auditorium is working very satisfactorily. Although the new school has been in use only two months, the Board is very much pleased with the way the system is working.

I have been in the new school several times during the past 2 months and have found that the temperature has been the same each time, and is the same in each class room. I don't believe that the temperature will vary a degree at any time, as it has been 70 degrees each time that I visited the school.

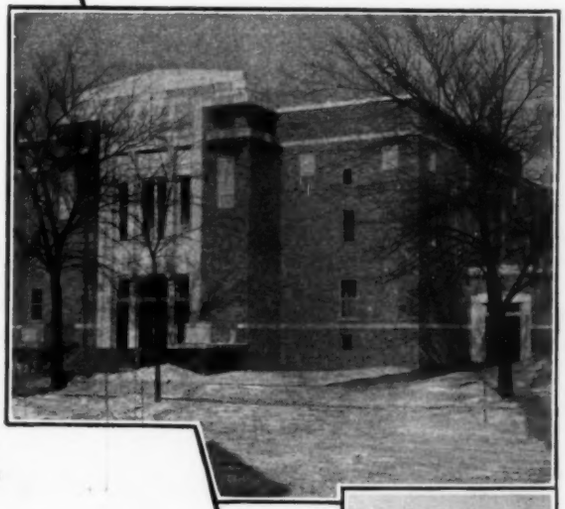
On the night of the dedication of the new Auditorium, there was a very large crowd and the temperature in the balcony varied less than 2 degrees above the normal setting.

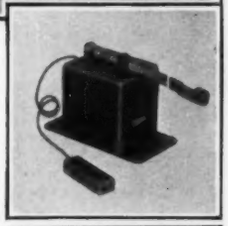
I think that the Board made a very wise decision when they decided to use the Modutrol system, thus saving the tax payers some money.

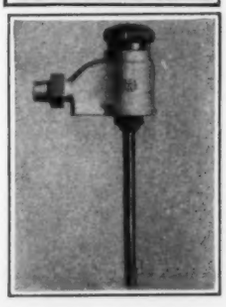
At this time I wish to thank the Minneapolis-Honeywell Regulator Co. for the prompt and courteous service that they have given the Board on this contract and I want to assure you that it has been a pleasure to the Board to do business with a concern like yours.

Yours very truly,

L. A. Hosel
Secretary
Board of Education







*The Modutrol System of electrical modulation provides accurate control of room temperatures in all types of buildings, large or small, old or new. In this System each control unit operates independently of all other units on the installation. The Modutrol System can be adapted to meet every type of temperature control requirement.*

The Minneapolis-Honeywell Catalog is filed in **SWEET'S** Pages D4625 to D4636

## MINNEAPOLIS-HONEYWELL *Modutrol Systems*

Minneapolis-Honeywell Regulator Company: Executive offices, 2820 Fourth Avenue So., Minneapolis, Minn. Factories: Minneapolis, Minn., Elkhart and Wabash, Indiana. Branch offices or distributors in all principal cities.

# In the Educational Field

HOWARD P. SAVAGE is the newly elected business manager of the Chicago public schools. He will serve four years at a salary of $12,000. MR. SAVAGE was formerly national commander, American Legion.

DONALD H. BIERY, formerly coordinator, Oakland public schools, Oakland, Calif., has been appointed superintendent, Sherman Institute, Riverside, Calif., a nonreservation Indian boarding school. He succeeds the late FRANK M. CONSER.

HIRAM A. JONES is the newly appointed head of the physical education bureau, New York State Education Department.

J. B. MONLUX has been promoted to the position of deputy superintendent emeritus, Los Angeles public schools, Los Angeles, after twenty-eight years of service as deputy superintendent.

OSCAR J. THORVIG is the newly elected superintendent of schools, Stewart, Minn. He goes to Stewart from a principalship in Boyd, Minn.

CLIFFORD S. BRAGDON, who has been acting superintendent of schools, New Rochelle, N. Y., since the death of DR. ALBERT LEONARD, has been elected to succeed DOCTOR LEONARD.

N. J. QUICKSTAD, Mountain Iron, Minn., will take office as superintendent of schools, Royal Oak, Mich., on July 1.

CHARLES W. TOWNSEND, superintendent of schools, Santa Clara, Calif., for the last ten years, died recently after a brief illness. MR. TOWNSEND had served the schools of Santa Clara for twenty-one years, first as a teacher, then as a principal and finally as superintendent. He was fifty-three years old.

H. A. COCAHOUGHER is the newly elected superintendent of schools, Boyle County, Kentucky, succeeding W. M. BYINGTON. MR. COCAHOUGHER assumes office on July 1.

CHARLES H. HOLMES has resigned as superintendent of schools, Acushnet, Mass. His resignation becomes effective July 1.

C. C. RIDDLE has been named superintendent of schools, Atwood, Okla., succeeding JOHN L. SULLIVAN, resigned.

FRANK M. AYRES has been reelected superintendent of schools, Dundee, Mich., for his ninth year.

CHARLES N. SHAVER, superintendent of schools, Huntsville, Tex., has been appointed state superintendent of public instruction, to succeed S. M. N. MARRS, who died recently. The appointment is for the remainder of the current year.

F. D. RING has been chosen to head the schools of Muskingum County, Ohio.

FLORENCE BIGELOW, co-founder and principal, Walnut Hill School, Natick, Mass., has resigned. The trustees of the school voted MISS BIGELOW a year's leave of absence, her term as principal to end at the conclusion of the year in 1933. HESTER R. DAVIES will succeed MISS BIGELOW.

C. O. CHAPMAN has been elected superintendent of schools, Meigs County, Ohio. MR. CHAPMAN has been principal of the high school at Rutland, Ohio, for several years.

W. E. THOMPSON is the newly elected superintendent of schools, Osceola, Neb., succeeding JOHN G. HANSEN, who goes to Superior, Neb.

GEORGE J. RYAN, president, board of education, New York City, has been decorated with the Order of the Crown of Italy in recognition of his services to education. The honor was bestowed on DOCTOR RYAN by the King of Italy on recommendation of Premier Mussolini.

E. M. WILLIAMS, president, Cleveland School Board, Cleveland, for thirteen years, has resigned, and is succeeded by ALFRED M. BENESCH.

DR. HENRY FRANKLIN CUTLER, principal, Mount Hermon School for Boys, near East Northfield, Mass., for forty-two years, will retire at the end of the present school year.

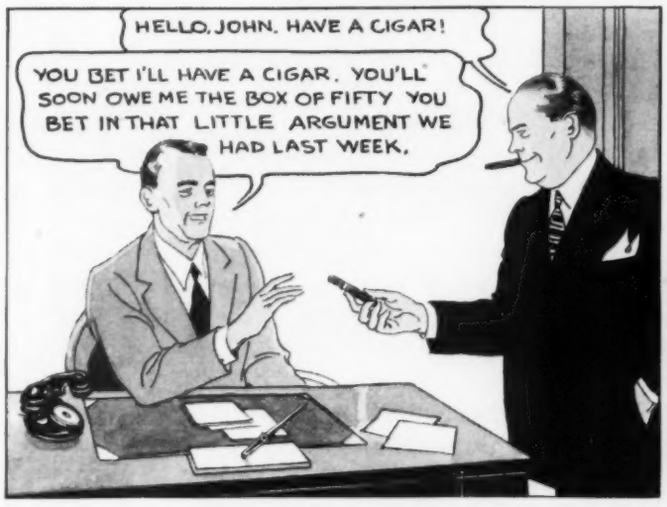
JOHN H. WILLIAMS, superintendent of schools, Delta, Iowa, has resigned. He will be succeeded by R. L. BARNETT, principal of the high school.

H. H. DRUHOT, formerly assistant superintendent of schools, Mahoning County, Ohio, has been elected superintendent of schools, Lebanon, Ohio, succeeding A. M. CALLON, who died recently.

G. J. QUIEL, superintendent of schools, Radcliffe, Iowa, for the last six years, has resigned. CARSTEN JOHNSON, principal of the high school, has been chosen to fill out the remainder of the school year.

LIONEL O'NEAL is the newly elected superintendent of schools, Lamar, Okla., succeeding A. B. VERNON, resigned.

## ( THE NEWS IS SPREADING FAST )


HELLO, JOHN. HAVE A CIGAR!
YOU BET I'LL HAVE A CIGAR. YOU'LL SOON OWE ME THE BOX OF FIFTY YOU BET IN THAT LITTLE ARGUMENT WE HAD LAST WEEK.

IF YOU MEAN THE ARGUMENT ABOUT FLOORS IT'S OK WITH ME. I'D GIVE A BOX OF 100 ANY DAY TO KNOW HOW TO CUT MY MAINTENANCE COSTS AND STILL HAVE REAL PROTECTION!
WELL, I'VE FOUND IT! LOOK HERE--

LOOK AT THESE FLOORS! THEY'VE JUST BEEN FINISHED WITH GLO-COAT- THE NEW PRODUCT BY THE MAKERS OF JOHNSON'S WAX. IT DOESN'T NEED ANY RUBBING OR POLISHING. I'VE ALREADY TRIED IT ON THREE KINDS OF FLOORS- LINOLEUM, ASPHALT BASE AND RUBBER TILE. IT'S JUST WHAT I'VE BEEN LOOKING FOR

GUIDNER
THAT SOUNDS GREAT. I'LL TRY IT. HERE'S ANOTHER CIGAR ON ACCOUNT- AND IF GLO-COAT'S AS GOOD AS YOU SAY, YOU'LL GET YOUR BOX ALL RIGHT!

*the new*
**FLOOR MAINTENANCE PRODUCT**
*by the makers of*
**JOHNSON'S WAX**

### NEEDS NO POLISHING OR RUBBING— SHINES AS IT DRIES

- Mail the coupon—let us send you free a full size can of Glo-Coat, the new floor finish that needs no polishing, no rubbing—that combines so many important advantages.
- Glo-Coat shines as it dries—is self-polishing. Simple to apply. Dries in 20 minutes or less. Easy to maintain. Saves labor. Received everywhere with approval.
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made by _____ ; No. of sq. ft. _____ .
(Name of mfr.)

*Name* _____

*Address* _____ *City and State* _____

# In the Educational Field

WALTER ALEXANDER will succeed J. L. KRAFT as superintendent of schools, Central Lake, Mich. MR. ALEXANDER is now at Charlevoix, Mich.

H. S. WILSON, formerly superintendent of schools, Welborn, Kan., has been elected to a similar position at Fredonia, Kan., succeeding H. C. SCARBOROUGH.

H. L. BLEECKER will succeed E. A. SCHIMKE as superintendent of schools, Pentwater, Mich., next year.

MARTIN GRANTHAM is the newly elected superintendent of schools, Frankfort, Kan. MR. GRANTHAM was principal of the Frankfort High School.

B. R. THORPE is the newly elected superintendent of schools, Valley Falls, Kan., succeeding F. L. MILLER, resigned.

SAMUEL ENGLE BURR has been reelected superintendent of schools, Glendale, Ohio. This is MR. BURR'S third term as superintendent. The Glendale schools will continue with the program of progressive education which has been in the process of introduction during the last two years.

ARTHUR D. ARNOLD will succeed DR. FRED S. SHEPHERD as superintendent of schools, Passaic, N. J. MR. ARNOLD has been principal of the Passaic High School. DOCTOR SHEPHERD'S resignation is effective August 31.

NEAL WHERRY has resigned as superintendent of schools, Holton, Kan., to become principal of the Lawrence Senior High School, Lawrence, Kan.

MILDRED LINCOLN, visiting lecturer in guidance and personnel, Teachers College, Columbia University, has been elected president, National Vocational Guidance Association.

G. R. BOGAN, superintendent of schools, Clare, Mich., has resigned and will be succeeded by E. D. KENNEDY, superintendent at Remus, Mich. TRAVERS OUSTERHOUT, superintendent of schools, St. Charles, Mich., will become superintendent at Remus.

W. D. MUNSON has been named superintendent of schools, Madison, Kan.

EUGENE J. COLTRANE has resigned as superintendent of schools, Salisbury, N. C., to accept work with the Committee on Radio Education, with headquarters in the National Education Building, Washington, D. C.

GRANT B. GERBERICH will retire on July 1 as superintendent of schools, Greenville, Pa., concluding his twenty-fourth year of service there. He will be succeeded by R. D. WELCH, superintendent at Kane, Pa.

MARY M. FITZ-GERALD, deputy superintendent of schools, San Francisco, since 1925 retired recently. MRS. FITZ-GERALD, who has devoted many years to teaching, is widely known as one of California's leading school women and is an active civic worker.

N. H. MCKAY has been named superintendent of schools, St. Louis Park, Minn., succeeding ROBERT SCOTT whose term expires in July.

FRANK KETLER, superintendent of schools, Berlin, N. H., is the newly elected superintendent at Cheltenham, Pa., succeeding ALBERT LINDSAY ROWLAND who has been named to the presidency of the State Teachers College, Shippensburg, Pa.

DR. RALPH YAKEL, superintendent of schools, Jacksonville, Ill., has resigned.

FRANK A. HENDERSON, superintendent of schools, Burbank, Calif., has been elected to head the schools of Santa Ana, Calif., as successor to DR. PERCY R. DAVIS who recently was named to succeed FREDERICK F. MARTIN as superintendent at Santa Monica, Calif.

J. A. SUMMERHILL, superintendent of schools, Andrews, Tex., has resigned.

A. W. HONEYCUTT, who is completing his thirteenth year as superintendent of schools, Hendersonville, N. C., has been elected to a similar position in Lexington, N. C., where he succeeds J. H. COWLES who has served there for the last fourteen years.

L. C. NEWMAN, superintendent of schools, Jetmore, Kan., has been elected to the superintendency at Sterling, Kan., succeeding C. B. WILEY.

DR. JAMES A. KEENAN has been appointed director of the department of school hygiene of Boston to succeed the late DR. DOHN A. CECONI. DR. SOLOMON H. RUBIN has been acting director of the department since DOCTOR CECONI'S death more than a year ago.

*YOU SELECT THE* **STYLE**

*LET US SUGGEST THE* **METAL**

● In determining which fence will prove most satisfying in appearance — most economical first and last — two points are vitally important.

STYLE is a matter for *your* decision. And PAGE FENCE is made up in a wide range of designs.

METAL has everything to do with length of service. And in that we can be of help. PAGE offers 4 different metals — each supremely resistant to corrosion — each doing its best work under certain special atmospheric conditions:

1. **Page "ALCOA" Aluminum**
2. **Page Armco Ingot Iron**
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● Call in a PAGE FENCE EXPERT before you make a decision. With the 4 metals to select from he is in a position to offer impartial advice. His one object is to give you the fence that will last longest in your locality. Write at once for his name. We'll send with it our new illustrated booklet —"Border Patrol"— with practical fence facts that you'll find surprisingly interesting and most practical. Address Page Fence Association, 520 N. Michigan Ave., Dept. N9, Chicago, Ill.

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nation-wide service through 82 service plants
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Page Fence is a Product of The Page Steel & Wire Company, an Associate Company of American Chain Co., Inc.
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Fence of Armco Ingot Iron fabric is exclusive with Page
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●

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## *That is the one best way to stop the DUST Nuisance*

LAPIDOLITH is a liquid chemical treatment that penetrates deeply into porous cement and binds the loose particles into a close grained mass, granite hard.

It goes on like water and hardens overnight. It then becomes a very practical form of floor insurance which you can have at trifling cost.

There are probably many floors in your own community that were treated with Lapidolith years ago. After much abuse they are still smooth, hard and dustproof. See them and you will be entirely convinced.

The application of Lapidolith is quite simple and your own janitor can do the job very satisfactorily. If, however, you prefer to use the trained Sonneborn service organization you can do so at very reasonable cost.

Let us send you the Lapidolith Book. It will give you complete information.

● *Note these famous Sonneborn savers of school buildings and maintenance expense. The coupon below will bring you detailed information.*

**LAPIDOLITH**
—A chemical liquid hardener for preserving and dustproofing concrete floors.

**LIGNOPHOL**
—For finishing, preserving and wearproofing wood floors.

**HYDROCIDE COLORLESS**
—For waterproofing exterior of exposed walls.

**CEMENT FILLER AND DUST PROOFER**
—A decorative and dustproofing treatment.

**CEMCOAT EXTERIOR AND INTERIOR PAINTS**
—Tough, durable floor paint that produces an attractive high-gloss finish. Various colors.

**MAG-I-SAN CLEANING POWDER**
—For economy and thoroughness in cleaning floors, walls, general utility.

**AMALIE WAX** *(Liquid and Paste)*
—Durable and dependable wax for every purpose. A Sonneborn guaranteed quality product.

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Please send me, without obligation, demonstration samples and literature on: Lapidolith —; Lignophol —; Cement Filler and Dustproofer —; Cemcoat Exterior and Interior Paints —; Hydrocide Colorless —; Mag-I-San —; Amalie Wax —; (Check products that interest you.)

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# Your School—
# Its Construction and Equipment

A Department Conducted by CHESTER HART, B.Arch., Chicago

## Controlling Temperature by Means of a New Unit Ventilator

Temperature control has had a number of recent developments through the introduction of temperature control valves for radiators. The application of this valve to the heating element in unit ventilators has given a new aspect to ventilation as well as heating. A new unit ventilator, the Air-o-lizer, made by the Trane Company, La Crosse, Wis., has been specifically designed to use this type of temperature control.

It differs from other ventilators in that no by-pass damper is used for tempering the air supplied to the room. Uniformly heated air is supplied by this unit ventilator, and the variable heat needed to give the proper room temperature is supplied by auxiliary radiators. Air temperature is controlled entirely by the amount of heat supplied to the heating element instead of mixing hot and cold air by means of the by-pass damper. The amount of steam supplied to the heating element is governed by the temperature of the incoming air rather than by room temperature. This regulation is achieved by locating the thermostatic element or bulb in the path of the incoming air. The thermal bulb is connected to the bellows operated valve by a small tube in which a sensitive liquid expands and contracts to operate the valve opening as more or less heat is needed.

An installation that might be used in a classroom may be described as follows: The Air-o-lizer delivers air, warmed according to outside temperature. The rest of the heat necessary to bring the room up to proper temperature is to be supplied by auxiliary radiation. A convection radiator that is similarly controlled with a thermostatic valve set for the desired final temperature completes the controls to regulate heat with this system.

*The Air-o-lizer and convection heater in use in a classroom in the Roosevelt School, La Crosse, Wis.*

*Cleaning Linoleum in Class Room.*

*Cleaning Chalk Trays.*

*Cleaning Erasers.*

# When you remodel . . . or build a new school

REMEMBER that of all the modern advantages that machinery can add to school operation there is none that benefits more people and saves as much money as the Spencer Central Cleaning System.

It cleans continuously . . . even during class time . . . the foot prints in the halls are erased with a vacuum pull that sucks all dirt and dust to a container in the basement.

The degree of cleanliness is greater, the health of teachers and pupils is conserved and the net increase in expense is more than overcome by the saving in time and the saving of paint, books, floor coverings and decorations—because the Spencer Cleaned School is *perpetually clean.*

## THE SPENCER TURBINE CO.

HARTFORD, CONNECTICUT — CENTRAL CLEANING SYSTEMS — REPRESENTATIVES IN 50 CITIES

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*Used by 1500 modern schools — endorsed by leading architects and educators.*

*A Modern Kindergarten—Spencer Cleaned.*

Ask for the new booklet "Modern Cleaning Methods for Modern Schools"

Other details of the unit do not differ radically from the standard design of unit ventilators. The Air-o-lizer may be had with a 100 per cent or 50 per cent fresh air supply or it may be entirely recirculating. A central control of motor and recirculating dampers may be located in the engine room or in the janitor's quarters. The unit may

be supplied with either a single-phase or three-phase motor, although the single-phase motor has been adopted as standard. The front of the machine is removable for the cleaning of filters and for any adjustments or maintenance that may be necessary. The unit may be recessed one brick course or left free standing in the classroom.

The chief departure in the Air-o-lizer is the elimination of the by-pass damper and its attendant new principle of having outdoor air control the steam supply to the unit ventilator.

## Nonsmudging Aluminum Trays for Cafeteria and Dining Room

Aluminum trays for cafeteria and dining room service have been found somewhat objectionable because of a tendency to smudge and darken table linen. This objection has been overcome by a new electrolytic treatment that is applied to "Wear-Ever" trays, made by the Aluminum Cooking Utensil Co., New Kensington, Pa. The treatment hardens the surface of the tray and thereby prevents smudging. The treatment is not a plating, but is an oxide finish applied directly to the metal. If the finish is destroyed through hard usage, the tray can be retreated at a small cost.

## Two Types of Concealed Door Checks for Interior Doors

Two overhead concealed door checks based on different mechanical principles have recently been designed for installation on interior doors. The advantage of this type of door closer is the elimination of all exposed mechanism with its dirt catching surfaces, and in rooms with a special architectural treatment no mechanical door closing device need be exposed to mar the beauty of the room.

The overhead concealed door check made by the Oscar C. Rixson Company, 4450 Carroll Avenue, Chicago, was particularly designed for hollow metal interior doors, and can be applied to any door having a pocket space of 1⅜ by 3⅞ inches within the hinge and the head stiles. It is recommended that steel reenforcing plates be welded at the corner of the door where the closer is applied by which means additional strength will be given to the door.

This door check may also be applied to wood

*This illustration shows how the door check can be installed in a metal door, with none of the mechanism visible to mar the appearance of the room.*

doors by means of side plates that are given the same finish as the woodwork. The door stiles should have dimensions of at least 1¾ by 4½ inches.

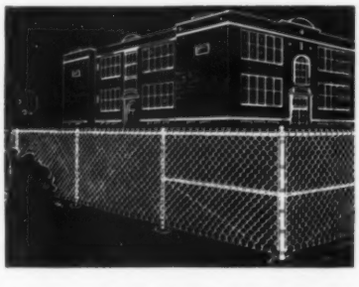
The check is nonhanded and will allow the door to open 150 degrees unless set back in a deep reveal. If a 180-degree opening is desired, a special handed arm is supplied. The closing of the door is regulated by two valves, one for closing

# Statistics Prove— THESE TWO ARE *NOT ENOUGH!*

Schools throughout the country have erected special signs, and appointed special policemen in an effort to stop serious accidents around school yards. But still this needless sacrifice of young lives grows, at an alarming rate.

In decided contrast are those Schools which realized that the best way to avoid danger is to keep children *out of streets.* By erecting Cyclone Fence they not only minimize accidents, but add to school discipline—beautify school property—prevent vandalism.

*No item in the school budget has more justification than Cyclone Fence.* Cyclone Fence, made of the highest quality materials, affords the *actual* protection to school children for which other protective measures can only hope. Cyclone Fence erected by our factory-trained crews relieves you of all responsibility. Write for details or estimate.



CYCLONE FENCE COMPANY
GENERAL OFFICES: WAUKEGAN, ILLINOIS
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SUBSIDIARY OF UNITED STATES STEEL CORPORATION
*Pacific Coast Division*
STANDARD FENCE CO., Oakland, Calif.

*Cyclone is not a "type" of fence but fence made exclusively by Cyclone Fence Company and identified by this trademark.*

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# This Folding Chair Makes A Two-Fold Bid For Your Business

It will pay you to investigate the advantages offered in this distinctly new chair. You deserve to know why this chair is more economical and why it has a more definite utility.

Write us today for more detailed information about the advantages of NORCOR steel folding chairs for school use.

## Norcor Manufacturing Co.

GREEN BAY, WISCONSIN

**Sold by leading school supply jobbers everywhere.**

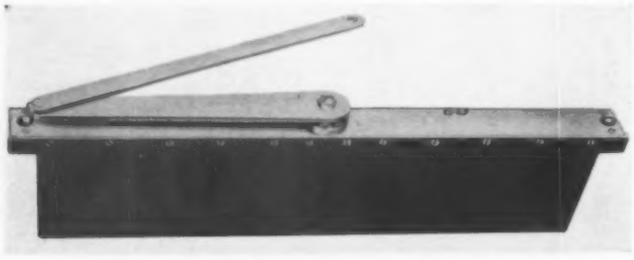
speed from 90 to 20 degrees, and the other for the last 20 degrees. The second valve is important in preventing drafts or wind moving the door slightly when it is not latched. A safety relief valve prevents damage to the door or the check when either is under unusual strain.

The spring tube, which is enclosed in the hinge stile of the door, has a cap at the bottom which can be removed for adjusting the spring to take care of any unusual conditions that may develop. The latch and closing speed adjustments are on the back edge of the stile and are easily accessible for regulation.

The Rixson check is also adaptable to center-pivoted doors and gates by means of special arms and pivots.

The concealed door closer made by the Yale and Towne Manufacturing Company, Stamford, Conn., was also designed for application on metal doors, although it may be applied to wood doors provided they are at least 1¾ inches thick and have a top rail of at least 6 inches in depth. Metal side plates are necessary unless the door is 2 inches or more in thickness when the closer may be mortised into the door like a lock.

The closer is composed of two compression springs applying their power to the spindle by means of two racks, with the racks so arranged that the turning force is balanced, thereby reducing the side pressure on the shaft bearings. A high grade mineral oil is used in the hydraulic checking cylinder to assure continuous lubrication and to



*Another type of concealed door closer, showing the closing arm and the box that is to be mortised into the top rail of the door.*

enable the closer to control doors that are subject to strong drafts.

These closers will work through 180 degrees, the first valve controlling the door action up to the last five or six degrees. The second valve controls the action of the last degrees so that it may be possible either to release or tighten the control when the door is subjected to a draft condition, giving either a silent or release action. Two regulating screws on top of the closer control the adjustment. There is no hold open feature made for this device, and it is also necessary to specify whether it should be right or left-hand.

## An Automatic Rotary Duplicator That Reproduces Eight Colors

A rotary type duplicator that is self-feeding and ejecting is a new machine that Ditto, Incorporated, Harrison Street at Oakley Boulevard, Chicago, is now making.

This new rotary machine has the advantage, besides the automatic feed and strip, of repro-

*This automatic rotary duplicator is self-feeding and ejecting. It is pictured here with the storage cabinet, which is also used as a stand.*

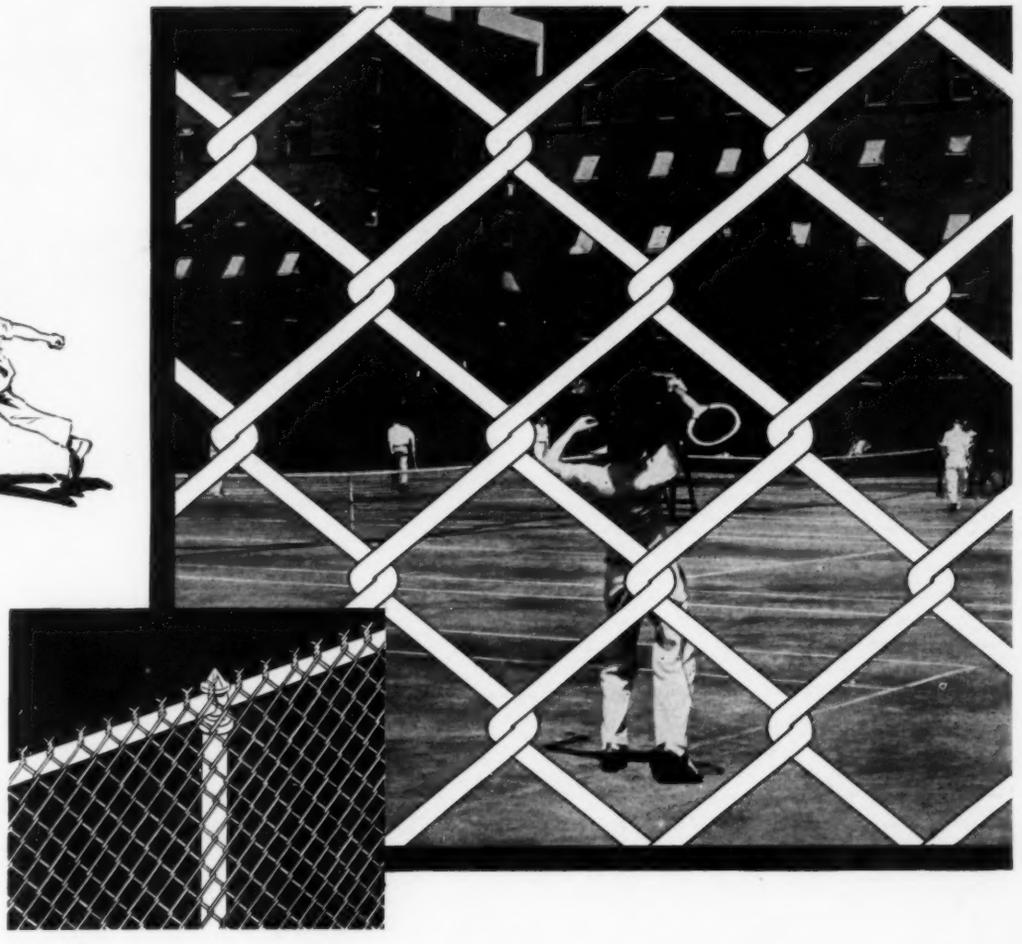
ducing eight colors with a single impression. The eight colors available are light and heavy purple, red, yellow, blue, green, black and brown. This variety of color is available in both ink and pencil form, and any combination of inks, pencils and typewritten work may be used on the same sheet. This allows a typewritten or printed story to be illustrated in ink, pencil or wash drawings.

The Ditto automatic rotary duplicator will hold and feed 200 sheets without refilling, and with proper operation will make 250 bright copies from one original at the rate of 100 copies a minute. The copies after printing are all gathered in a stack in the receiving tray, which is on the opposite side of the machine from the feeding tray. All grades of paper ordinarily used may be run in this machine, provided an adjustment is made to receive the grade used. This includes both bond and coated papers, and sixteen and twenty-pound papers. Sheets of various sizes may be used in this machine, but the maximum copying area is 8½ by 12½ inches.

The gelatin films used in copying may be stored in a drawer that is an integral part of the duplicator. Further storage space for films and also for paper may be obtained as a separate unit. This storage cabinet may be used as a stand for the duplicating machine.

# TENNIS BACKSTOPS

## IN THE MODERN MANNER



**Tennis backstops need no longer be an eyesore that warp out of shape under summer suns, that heave out of line with every frost and soon become totally useless because of tender rusty netting. Wickwire Spencer makes and erects backstops in the modern manner. Straight, true and trim, they seem to defy time, weather conditions and use. Both the frame and fabric are *Copper Bearing Steel* hot dipped galvanized after fabrication. They are not expensive to buy and are a permanent investment because of long life and minimized maintenance. A local representative will gladly call and make quotations. His call involves no obligation on your part.**

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***Buffalo Sales Office:*** **1 River Road; Worcester, Chicago, Philadelphia, Tulsa; *Pacific Coast Headquarters:* San Francisco; *Warehouses:* Los Angeles, Portland, Seattle; *Export Sales Department:* New York City. Distributors and Erectors in all principal cities.**

**WICKWIRE SPENCER**
***Chain* LINK *fence***

**Wickwire Spencer Steel Co.**
**41 East 42nd St., New York City**

**I shall be pleased to receive a copy of your latest catalog on fence.**

***Name*** .....

***Street*** .....

***City and State*** .....

# COOKING FUEL COSTS CUT $400.00 A MONTH BY HOTEL SHERMAN, CHICAGO

A "Facts *and* Figures" story . . . for every manager who wants to cut cooking costs

EARLY in 1930 the Hotel Sherman Company, Chicago, decided to save money by replacing obsolete cooking equipment. New Vulcan, All-Hot-Top and Open Top Insulated, Heat Controlled Gas Ranges, Vulcan Deep Fat Fryers, Radiant and Salamander Broilers were installed.

Mr. Albert H. Byfield, Vice-President, wrote recently: "The last seven months of 1930 cost us $7,003.00 in gas. The corresponding seven months of 1931, during which time we used the new ranges, showed a corresponding cost of only $4,017.00. January, 1932, shows a saving of approximately $400.00 as compared to the average of the preceding four years, and February is nearly as good."

The new equipment paid for itself in eight months out of the $400.00 a month savings in fuel ...and now the $400.00 monthly saving is clear gain.

Everyone may not be able to show as large a saving, because the operating cost is based on amount of equipment, cooking done, age of equipment and fuel. But, we do say that it will be to the advantage of managers of hotels, restaurants, clubs, hospitals and schools to look over their cooking equipment, figure the cost of operation and find out the Vulcan story.

## 5 WAYS THE NEW VULCAN GAS EQUIPMENT CUTS COOKING COSTS

1 Heat losses and gas consumption in oven cooking reduced by heavily insulated oven walls.

2 Over-heated ovens and resultant food shrinkage and waste of gas prevented by oven heat control.

3 Oven heat used more effectively in baking and roasting by improved flue system.

4 Top cooking made more efficient by All-Hot-Top. Heat of one burner spreads under entire top. All rings of burner quickly heat the top. The one ring keeps it hot economically.

5 Labor costs reduced because range requires less watching due to automatic control . . . smooth front of range is kept clean with less work. More comfortable working conditions increase the efficiency of help.

STANDARD GAS EQUIPMENT CORPORATION
20 EAST 41st STREET, NEW YORK CITY
New York . Philadelphia Baltimore . Chicago . Boston . Birmingham
*Pacific Coast Distributor* . . . Northwest Gas & Electric Equipment Co. . . . Portland, Oregon

VULCAN EQUIPMENT MAKES GAS THE MODERN EFFICIENCY FUEL . . . CLEAN, FAST AND ECONOMICAL

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Published on the fifteenth of each month by
THE NATION'S SCHOOLS PUBLISHING CO.
Member Audit Bureau of Circulations
*President,* Otho F. Ball *Secretary,* Stanley R. Clague *Treasurer,* J. G. Jarrett
919 NORTH MICHIGAN, CHICAGO, ILLINOIS—Telephone, Superior 6402
NEW YORK OFFICE—515 Madison Avenue. Telephone, Plaza 3-6969
SUBSCRIPTION RATES—Domestic, $2.00. Canada and Foreign, $3.00. Single copies (current), 25c. Back copies, 50c.
Copyright 1932, by THE MODERN HOSPITAL PUBLISHING CO., INC. Entered as second-class matter January 16, 1928, at the Post Office at Chicago, Ill., under the act of March 3, 1879.
Printed in U. S. A.

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***built to last forever***

THIS BOOK

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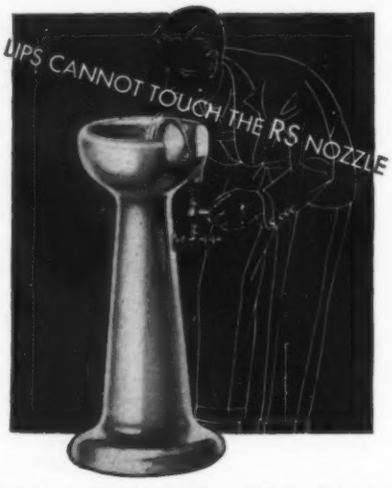


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That is the decision of every institution installing Rundle-Spence drinking fountains . . . and they arrive at their decision rightfully.

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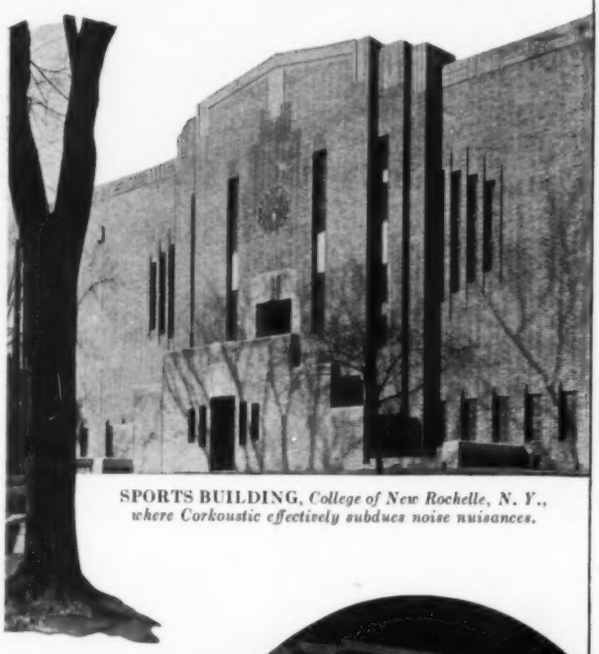
# NOISE NUISANCE *banished* from college sports building

***Read also how Henry J. McGill, architect, endorses qualities of Armstrong's Corkoustic***



SPORTS BUILDING, *College of New Rochelle, N. Y., where Corkoustic effectively subdues noise nuisances.*

OFFICE of HENRY J. McGILL ARCHITECT A.I.A. : 415 LEXINGTON AVENUE : MURRAY HILL 2-4837 : NEW YORK

11 MARCH 1932 about SPORTS BUILDING, COLLEGE OF NEW ROCHELLE.

ARMSTRONG CORK COMPANY, CHURCH STREET, NEW YORK CITY.

GENTLEMEN:

It gives me great pleasure to amplify the spontaneous statement in an earlier letter, a letter which, because of the pleasure we took in the appearance and quality of your work, we could not resist writing.

Cork has been used throughout this building to take the place of every other lining, and to supply qualities that no other single material could, so well.

Primarily, we used it because:

1st--It reduced the transmission or loss of heat.
2nd--It eliminated condensation.
3rd--It rendered valuable acoustical absorption.
4th--It served as a decorative finish.

These four qualities were essentially desirable in this building, and it was my thought that it could be economically introduced because it permitted the elimination of the usual forms of furring, plastering, painting, etc., and by these omissions offset to a great extent an additional cost.

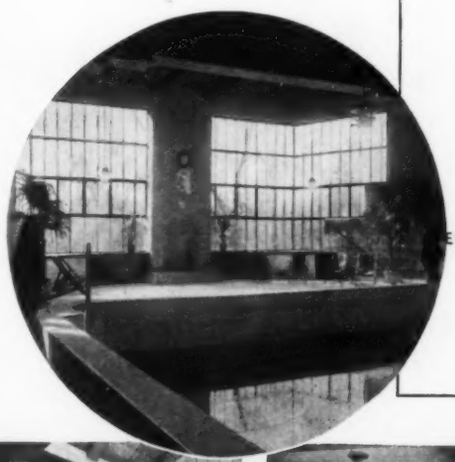
A great deal of moisture is to be found in a building of this type, and the contents of a Swimming Pool increase the conductivity, and, therefore, the amplification of sound. This perhaps was the least of the serious concerns, but all the factors intended to be remedied by cork have been most satisfactorily accomplished at this building.

We compliment you for the work you have done on this job, and we congratulate ourselves for the opportunity we sought in establishing an idea.

We thank you very much for the splendid co-operation rendered, which has brought this exceedingly satisfactory accomplishment about.

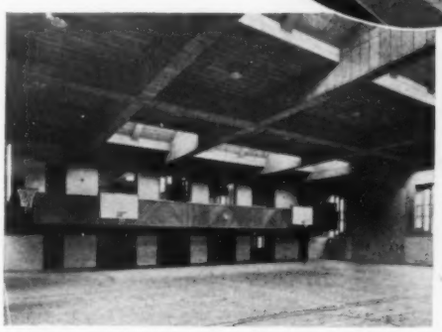
With every good wish,

SINCERELY YOURS, Henry J. McGill.

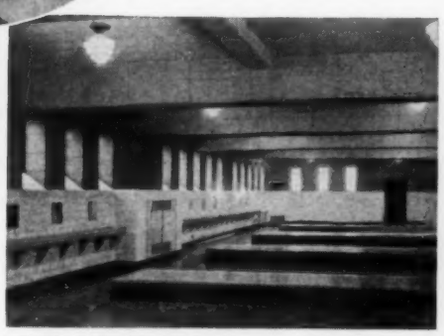


**SWIMMING POOLS** *are subject to disagreeable noise nuisances and dangerous condensation. Both are banished here by application of Corkoustic to walls and ceiling.*

Armstrong's (A) Product



**IN THE GYMNASIUM,** *Corkoustic is shown in delightful contrast. On the ceiling the cork is left in natural finish for richness and warmth. Walls are painted for added decorative effect and greater light refraction.*



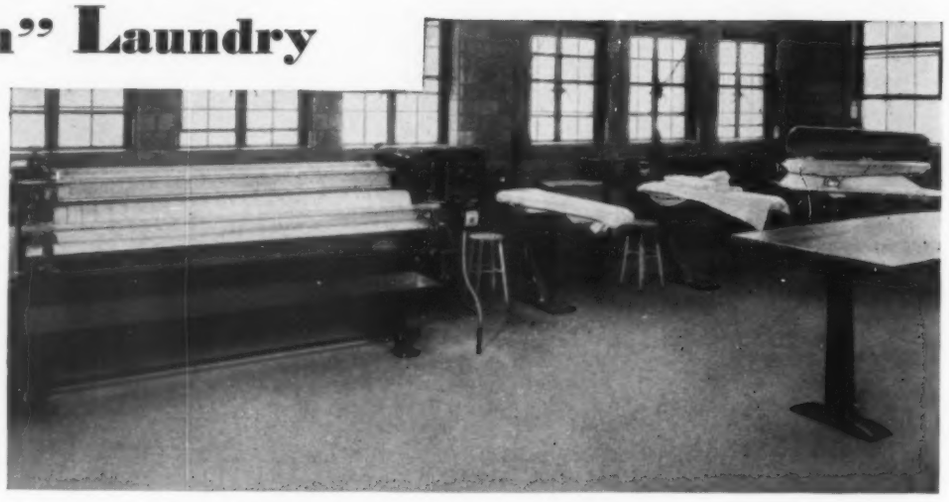
**THE LOCKER ROOM** *is another place where condensation is checked by the application of Corkoustic. Since this material is made of cork, it has high insulating value and helps keep buildings comfortable all year round.*

**IN THE LOUNGE ROOM** *a charming decorative effect as well as acoustical treatment has been achieved with Corkoustic. The Armstrong's Linoleum Floor (Pattern No. 181) contributes to the attractiveness of the room.*

# *Armstrong's Acoustical Products*

# THEY *solved* their problem OF SCHOOL HYGIENE with an "All-American" Laundry

Duns Scotus College, Detroit, always has plenty of clean, fresh linens ready for service. But Duns Scotus College does not have a large reserve supply. All the dormitory and dining-room linens, towels and gymnasium uniforms, are washed in American Monel Metal Cascade Washers—then extracted in American Underdriven Extractors. Wearing apparel is finished on American Eagle Presses. Flat work is ironed on the American Return Apron Flat Work Ironer, the ideal machine for the institutional laundry.* Our American Specialist helped to plan and equip this modern laundry department; an American Specialist will also be glad to discuss the laundry situation at *your* school, without obligating you in any way. Write.



**Duns Scotus College's "American" laundry. Note the space-saving American Return Apron Flat Work Ironer, a guaranty of quality work. Linens pass over a highly polished, steam-heated cylinder, then back again for a second ironing—twice through.*

THE AMERICAN LAUNDRY MACHINERY COMPANY CINCINNATI, OHIO

# Take the SQUINT out of *Blackboard Reading*

When you weigh blackboard value, consider its visibility . . . *what happens when pupils read from it.*

If its surface is shiny, if it reflects light, then such blackboard is dangerous for school use. Shiny, reflecting surface means that pupils can not see all of the writing all of the time, from any angle in the classroom. Writing fades, which causes *squint* . . . and *squint* is the forerunner of *eyestrain,* impaired vision and other serious ills. You protect pupils . . . facilitate successful teaching by specifying *Sterling Lifelong Blackboard.* It is unlike other Blackboards, in that it positively will not shine, reflect light or fade out writing.

It has smoother writing qualities, too, with a surface that is free from irregularities, blemishes and imperfections. A sample, cut right from stock, gladly sent free to interested educators and school board members. Address Dept. S 621.

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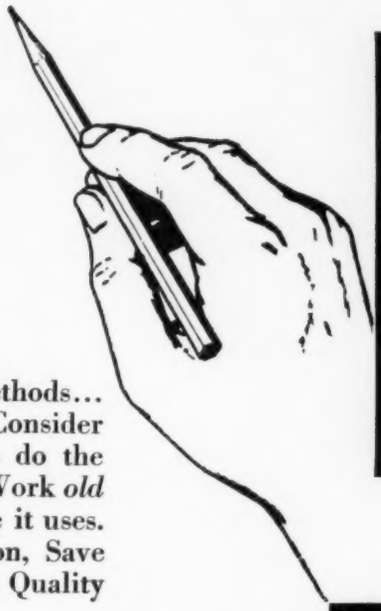
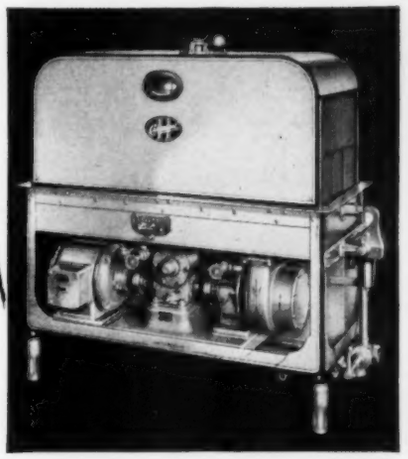
*Makers of* STERLING LIFELONG BLACKBOARD, OLD RELIABLE HYLOPLATE, VELVASTONE, GLOBES, MAPS, ERASERS, CRAYONS

# *Stop the losses*

## Check the cost of *doing without* the latest Hobart equipment





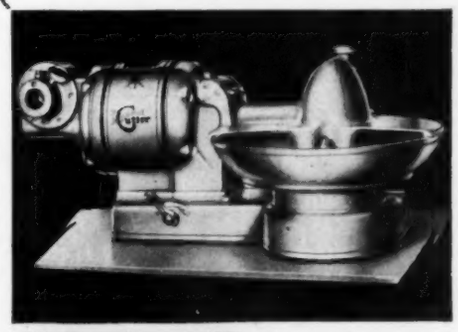
Hobart-Crescent Dishwashers superbly meet the smallest or greatest demand. 8 automatic and semi-automatic models. Many exclusive features... such as patented Dual-Drive. Famous Model CM shown here.

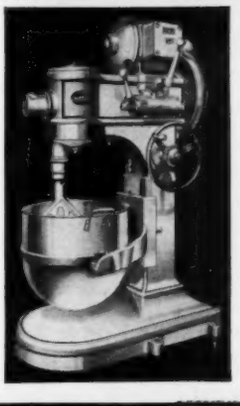
**TODAY you need the help of the Best Methods... Figure what it costs to do without them. Consider the Time Element... how long it takes to do the countless tasks in the Kitchen. The Extra Work *old* equipment necessitates... the Extra Space it uses. Think how you can Improve Organization, Save Money on Food, Increase the Appetizing Quality of Meals... with Modern Equipment.**

Hobart Potato Peelers pay as they peel; quickly. Three sizes, with capacities from 15 to 45 lbs. peeled in 90 seconds. Negligible peel loss. Unequalled for service... quietness... long life...

Hobart Potato Peelers cut out waste in potato peeling; they peel "skin deep." Hobart-Crescent Dishwashers save time, labor and reduce breakage. Hobart Mixers make foods "go farther" because of scientific mixing; eliminate the "failures;" and create a variety of dishes of tempting goodness. New, low-priced Food Cutter improves food quality, prevents waste and saves time. The Hobart Electric Slicer "gets more" out of meats (cooked, uncooked, hot or cold), bread, cheese, vegetables, fruits.

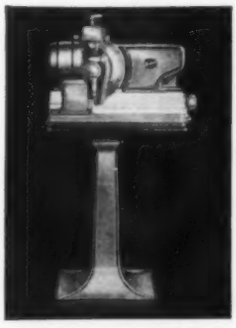
One Hobart Guarantee covers all Hobart Machines... One Nationwide Organization services them all. Get the facts about Hobart Machines now, while prices are lowest and Terms Easier than ever before. Clip and mail coupon Today.





The new, Low-priced Hobart Food Cutter. Has all the famous features of the larger models. Cuts, slices, grates and shreds vegetables, fruits, nuts, cheese, meats, etc. No Kitchen can afford to be without it.

Hobart Mixers are the most widely used machines in the Kitchens of Today. Built in 3, 5, 10, 15, 20, 30, 40, 60, 80 and 116-Quart Bowl Capacities, with Attachments. You need one or more Hobart Mixers.



There never was such a Slicer as the Hobart Electric Ball Bearing Slicing Machine. Combines the latest features in one machine. For Meats, hot or cold, cooked or uncooked, Bread, Cheese, Vegetables, Fruits, etc.

**THE HOBART MFG. CO., TROY, OHIO**

*London Paris Toronto*

***Sold Through Leading Kitchen Outfitters***

Crescent Hobart

**WE SELL THE MOST**
**BECAUSE WE MAKE THE BEST**

## Mail this Coupon NOW

THE HOBART MFG. CO.
Dept. H-46, Troy, Ohio

Please send information on machines checked:

☐ Mixers ☐ Potato Peelers ☐ Slicing Machines
☐ Food Cutters ☐ Dishwashers

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Street_____

City_____ State_____

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For full effectiveness Visual Instruction demands simplicity in use.

The B&L Overhead Projector simplifies Visual Instruction . . . reduces the problem of discipline in the darkened room, makes the teacher's work easier by permitting him to sit before the class, facing the pupils, with all notes and materials for the lesson ready at hand. Features in the picture may be pointed out with a pencil *on the slide* rather than with the old fashioned pointer on the screen.

The Overhead Projector provides for this time-and-effort-saving, over-the-teacher's-head projection with an ingenious system of mirrors, solidly mounted and practically indestructible.

The instrument is inexpensive and built to stand the daily use of classroom work. Can be easily adapted to the B&L Balopticons you are now using. It conserves the teacher's energy, concentrates pupil attention and eliminates the necessity of an assistant. For further information write . . .

## BAUSCH & LOMB OPTICAL CO.

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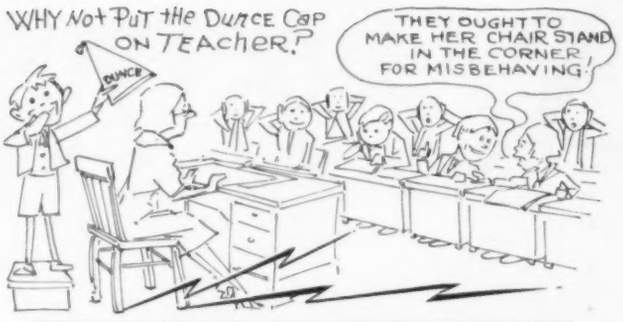
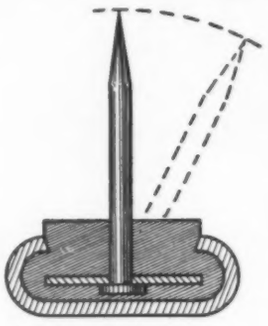


*Dotted lines indicate degree to which chair may be tilted while glide remains flat on the floor. The Rubber Cushion absorbs all noise, and washer prevents nail from pulling out.*

Do your pupils look up from their studies every time you move your chair? Is the noise in your schoolroom preventing good grades? If so, it is time to equip all chairs and movable furniture with

# DARNELL *Noiseless* GLIDES

Your recommendation to install Darnell Noiseless Glides will result in floor protection, the prevention of wracked furniture, and a greater class efficiency.

*Write for FREE Sample Set*

**DARNELL CORPORATION, LTD.**

STATION B, BOX 2008-N, LONG BEACH, CALIF .. 32 N. CLINTON ST., DEPT. G, CHICAGO, ILL.

# Jr. is here!

**The Samson JUNIOR or standard sound system for schools offers:**

1. **Choice of 25-room or 50-room equipment—radio set power amplifier, microphone (amplified) electric phonograph, pick-up and control board—all enclosed within cabinet and including speakers, tubes, etc.**
2. **So simple a child can operate it.**
3. **Maximum of service—minimum price.**
4. **Exclusive Samson control switch—permits operator to contact all rooms whether or not teacher has turned off program.**
5. **Carries the full guarantee of a concern now 50 years in the business . . . and originators of A-C operated, Sound Systems.**

●

*May we furnish names of schools Samson-equipped with our bulletin NS106?*

●

## SAMSON ELECTRIC CO.

**Member R. M. A.**
**Manufacturers Since 1882**

**Main Office:** Canton, Mass.
**Factories:** Canton and Watertown, Mass.

# COMBINED WOOD AND STEEL *Stronger Than Any Other Chair Made!*

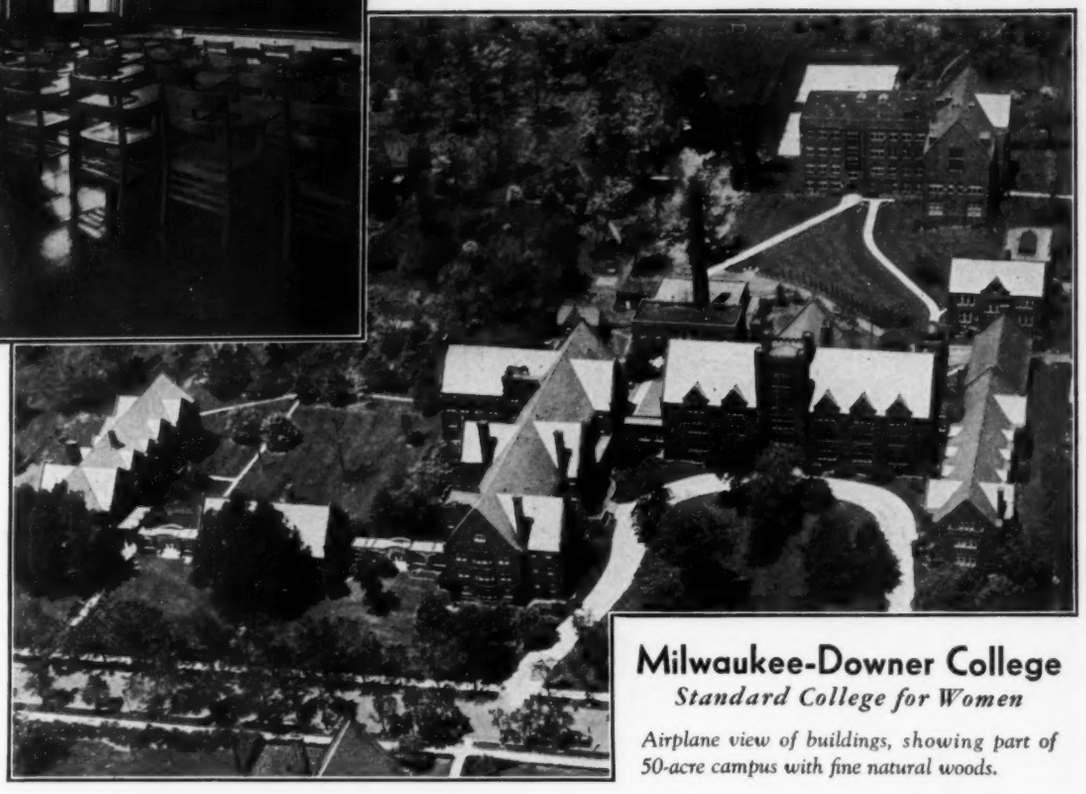
SOLID KUMFORT AND PRESS-TOE LOCK FOLDING CHAIRS

IDEAL FOR SCHOOL AUDITORIUM AND GYMNASIUM. OUTLAST ANY ALL WOOD OR STEEL CHAIR MADE. ASK ABOUT OUR TAB-L-ARM FOLDING CLASS ROOM CHAIR.

## LOUIS RASTETTER & SONS CO.

1404 WALL ST., FORT WAYNE, IND.

View of Classroom Waxed with Dri-Brite



**Milwaukee-Downer College**
*Standard College for Women*

*Airplane view of buildings, showing part of 50-acre campus with fine natural woods.*

# 3 Pints of Dri-Brite *Liquid* Wax

## *Maintains Hardwood Floor of Average Size Classroom for*

## School Year

Mr. John W. Young, Superintendent of Buildings and Grounds of *Milwaukee-Downer College*, reports that hardwood floors in Sabin Science Hall, which had previously been oiled and otherwise treated and finished without satisfactory results, were thoroughly renovated last October (1931) and refinished under the supervision of the Chemical Specialties Co. of Milwaukee (industrial distributors for Dri-Brite in Wisconsin).

The floors were filled and sealed, in an attractive walnut shade of brown, and finished with one coat of Dri-Brite Liquid Floor Wax, requiring no buffing or polishing. The resulting beautiful lustrous surface has proven wholly practical for class room use. No wear is apparent on the filled and sealed finish—the filling and sealing operations need not be repeated.

All scrubbing has been eliminated and wet mopping is resorted to only three times a year—during summer, Christmas and Easter vacations.

A light application of Dri-Brite follows the wet mopping mentioned—no Dri-Brite is used otherwise; and daily maintenance consists of a rapid and efficient sweeping and dusting with chemically treated dust mops.

ONE PINT of Dri-Brite is sufficient for the maintenance coat in the average size class room; THREE PINTS per year for the average room is all the maintenance material required. No soaps or cleaners are necessary.

In one of the students' dormitories, five gallons of Dri-Brite maintained 24 rooms and two large corridors during the school year just ending, eliminating all scrubbing and wet mopping. Doorways and bathrooms were touched up every two or three weeks; but the rooms and corridors received only a light application at Christmas and Easter vacation periods. The floors are maintained in wonderful shape by daily dusting with chemically treated dust mops. These floors are also wood—maple and oak.

**WARNING!**

*The great success of Dri-Brite during the last six years has encouraged many imitations. No matter who makes the substitute you are offered, for the protection of your floors insist on obtaining the genuine and original Dri-Brite Liquid Wax. It is endorsed by leading manufacturers of linoleum, asphalt tile, hardwood, rubber tile, terrazzo and marble, painted and varnished floors.*

*FOR A FREE SAMPLE OF DRI-BRITE — write*

MIRACUL WAX CO. » ST. LOUIS, MO. » *Sole Manufacturers of*

# DRI-BRITE
# *Liquid* WAX

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Many hours of THIS . . .

Many hours of THIS . . .

*have you ever stopped to realize what it does to your students?*

IN the average school year, the average child spends 970 hours at his desk, of which about 485 hours are devoted to reading! Hours that mould students mentally . . . and physically as well.

The gymnasium and play period can not overcome the physical disabilities resulting from continual stooping over and slumping in school seats. Educators are beginning to realize this. Correct seating is also a factor in sight conservation. That is why so many schools are adopting the American Universal Desk illustrated to the left.

It is not only the most scientifically correct posture desk on the market today, but serves as well, six distinct classroom purposes. You should know this desk—the features that make it so outstanding. The facts are available. Address Department NS6 please.

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**No. 10—PLAY-BILD STORE.** 36 inches wide, 40 inches deep, 49½ inches high. Wood panel sides, stained red; green painted canvas roof; solid wood counter; screen door in rear; two windows; white trim. Weight, 48 lbs.

**Something new! Different! Instructive! Play-Bild Houses keep kiddies gainfully amused, and interested in school. Colorful; sturdy; durable. Quickly and easily assembled and taken down—children love to help. Made of weatherproof materials—suitable for indoor and outdoor use. Cut, fitted, ready to assemble, and complete with all bolts, screws and full instructions for erection. Packed individually in cartons. Surprisingly low-priced ($6.00 and up). Details upon request.**

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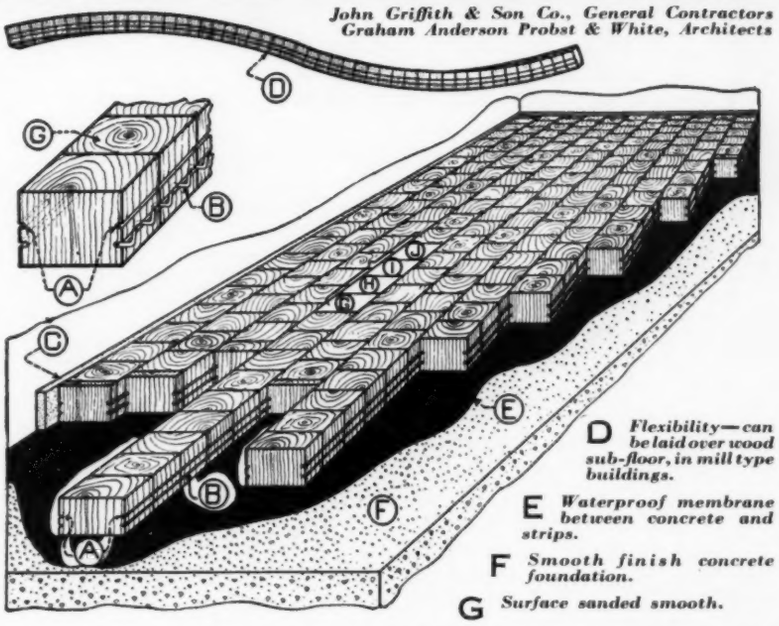
# Kreolite Floors in the Great New Chicago Post Office

The conspicuous and exclusive advantages and economies of Kreolite Flexible Strip Wood Block Floors in school buildings and institutional structures are recognized in a striking manner in the great new United States Post Office at Chicago, where approximately 150,000 square feet of this modern flooring is being laid. Kreolite flooring meets all the diversified requirements of this comprehensive building, indicating how emphatically the school architect will find Kreolite the best answer today to his flooring problem.




**D** *Flexibility—can be laid over wood sub-floor, in mill type buildings.*

**E** *Waterproof membrane between concrete and strips.*

**F** *Smooth finish concrete foundation.*

**G** *Surface sanded smooth.*

**A** *Metal wire truss binding the individual blocks into a compact, solid, monolithic-like plank or strip.*

**B** *Metal spline binding the individual strips together.*

**C** *Cork expansion joint laid flush with the surface of the floor.*

**H** *Manufactured from properly dried yellow pine or redwood.*

**I** *Treated with a colorless, odorless, waterproofing preservative.*

**J** *Blocks run full depth of strips, each block being anchored to the base, in a bed of mastic. Laid with the tough end grain up.*

## THE JENNISON-WRIGHT COMPANY

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# KREOLITE

**• Flexible Strip Wood Block Flooring •**

# VACATION TIME

*. . . and it's the best time to install*

## INTERNATIONAL TIME AND PROGRAM SYSTEMS

AUTHORITIES tell us that, due to prevailing conditions, school enrollment will more than double its normal increase next fall.

Classrooms thus filled to capacity present a handling problem that can be easily solved with International Time and Program Control.

The improved discipline which it establishes will enable instructors to take care of a maximum number of pupils. An entire schedule, set up at the beginning of the year, will continue to operate automatically throughout the school term. Bells will ring at the proper times — in perfect agreement with the clocks. Classes will move quickly and without confusion. And no small point is the fact that the step-ladder may be designated for duties other than that of setting clocks. *Every* clock in an International System is equipped to keep itself corrected.

We will gladly cooperate with you in taking advantage of vacation days to prepare for more efficient program operation next year.

*If you wish more information about this modern means of school time administration, clip and mail the coupon below.*

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Please send me a copy of your booklet "Time Control in the School."

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# LET THE "GATE-CRASHERS" PAY

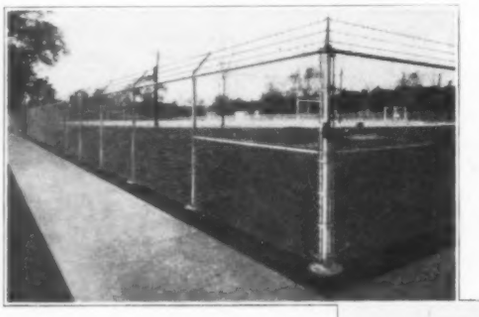
## for Fencing Your Athletic Field

RIGHT at this time many schools in this country are considering dropping athletic competition — to save money. They would be wise to consider these facts —

The margin between profit and loss on athletic events is usually no more than *unpaid admissions*. In other words, the money that "gate-crashers" don't pay could often put the athletic program on a paying basis.

Cyclone Fence encircles your field like a barrier of steel, practically unclimbable. You can dispense with guards and save that charge — yet you can absolutely control admissions and exits.

The Cost of Cyclone Fence? Less than the money you lose without it! . . . And Cyclone Fence is made and erected to give you *years more* service. Made of copper-steel, and covered after weaving with a smooth, dense coat of pure zinc. No chance for rust to develop! Erected — on H-Column posts set in substantial concrete foundations. Installation can be made by our factory trained crews if desired. One of our trained sales engineers will gladly help you plan your fencing, whatever your requirements. Let us send you information.



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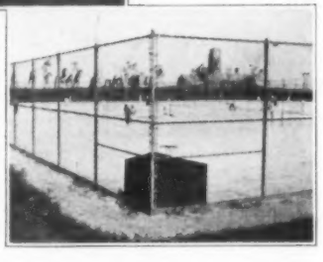
Please do not forget that we can offer you the same convenient, money-saving service on fence and wire products for all school needs — Tennis Court Enclosures, Playground Fence and Equipment, Open Mesh Partitions for Locker Rooms.



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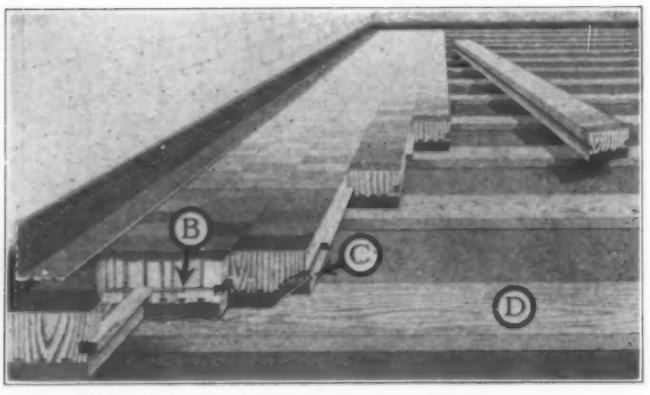
The main basketball floor of the Ohio State University Physical Education Building, Columbus—225 ft. long by 82½ ft. wide. It and 6 handball courts are floored with a total of 23,000 sq. ft. of BLOXONEND.
—Howard Dwight Smith, architect.

# OVER 500 SCHOOLS KNOW BLOX-ON-END *IS BEST*




An exclusive method of laying BLOXONEND over floor strips with no fill between, results in utmost resilience that is desirable in a gym floor. Write for free descriptive booklet.

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BLOXONEND is neither an experiment nor an innovation. It is the original strip type block flooring. For 16 years it has proved its superiority for gymnasiums and school shops.

Because the tough fibre ends of the wood form its surface, BLOXONEND can't splinter or sliver. The floor presents a handsome appearance. It is lastingly smooth, remarkably resilient and lasts a lifetime, eliminating the bother and expense of repair. Specified by nearly all leading school architects and installed in more than 500 schools. Easily laid in old or new buildings.

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General Offices—Kansas City, Mo.

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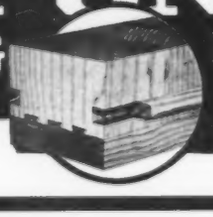
*Lays Smooth Stays Smooth*



Comes in 8-ft. built-up lengths—the end-grain UP

Small blocks of Yellow Pine dovetailed onto baseboards